



FIG. 1. CHIPPEWA CREE VILLAGE IN MONTANA



nâtawihowin | healing medicine

HEALING AND GATHERING CENTERS

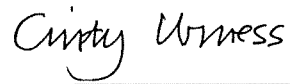
HEALING AND GATHERING CENTERS

A Design Thesis Submitted to the Department
of Architecture and Landscape Architecture
of North Dakota State University

By

Meaghan Hawley

In Partial Fulfillment of the Requirements
for the Degree of
Master of Architecture



Primary Thesis Advisor



Thesis Committee Chair

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THESIS PROPOSAL

THESIS ABSTRACT



This thesis proposes to create a place of sanctuary and gathering for Native American individuals and communities- a place for memorial, healing, and prayer concerning loss and/or trauma as well as a hearth for families and communities to gather so they may mourn, celebrate, dance, reunite, and reminisce.

Two spaces are proposed and while the functions are intertwined and dependent upon one another, it is incumbent to separate them for sensitivity and respect of the users' various needs of privacy. The first typology is a healing center for those grieving and struggling so they may find a glimmer of hope and restoration through shared struggles and trauma and receive healing through community and vulnerability. The second is a cultural/community center that will act as a hearth- a place for gathering so that families and communities may express and experience fellowship for life's various times and seasons.

My research investigates the renewal that is birthed from shared sorrow and pain, the willingness to render the heart bare as well as the importance of fellowship for healing and strengthening the cords of family and community.

While the focus for my thesis is to address the 21st century Native, to not first acknowledge and explain the past and historical trauma would be insensitive and ignorant towards the ongoing plight of Native Americans and how this trauma continues to bleed into everyday life for many.

Since the dawn of Columbus in the western hemisphere in 1492, trauma (through genocide, culturicide, assimilation, and broken treaties) has been woven into the DNA fabric of Indigenous peoples, scarring generation after generation for centuries, resulting in unhealthy and ineffective coping mechanisms for grief and day to day life. While these traumatic experiences make the grieving process ever more difficult, loss and trauma are no respecter of persons, experienced by all, like the rising and setting of the sun.

Despite these struggles, the gathering of family and friends are central in keeping ties strong within

the Native American community. A clannish people, gatherings for loss, memorial, dance, laughter, feast, and reunion are integral to not only remembering, but looking onward, living in the present, and finding healing and rest.

For this thesis proposal, my aim is to show how a place and its sacredness through the initiation of reflection, rehab, and social connections may begin to unravel trauma, bring life and healing, and strengthen familial bonds through the changing seasons of life. I hope to weave successful practices of counseling programs with the traditional sense of community and sharing among Indigenous people, in particular the Plains Ojibwe, Cree, and Metis of Montana.

Regarding the sensitive nature of the program and the need for privacy, I deemed it necessary to create two separate spaces- a counseling or healing center for those experiencing grief and a commu-

nity center for social gatherings. While physically in different locations but on the same site, I hope to convey the relationship of healing and coming together and to normalize the grieving process.

PROJECT TYPOLOGY



In the first typology, this thesis proposes to create a **counseling/healing center** for those experiencing grief and trauma- a space the facilitates healing, memorial, and reflection through counselling services and by sharing with others. Instead of a mental health facility that institutionalizes its patients, I want to recreate the environment of a traditional Native gathering and apply its principles in individual and group settings.

While I wish to promote openness, it is still vital to be sensitive towards the user's needs. This space will be separate to its counterpart while still on the same site.

PROJECT TYPOLOGY



Gatherings amongst Native Americans have been important throughout our history. They are used for funerals, feasts, dances, ceremonies, and basic social interaction. They continue to act as a hearth and generate a strong sense of community, strengthening family bonds despite life's hardships.

Through this second typology, my aim is to create a **community center** that is dedicated to the aforementioned gatherings rather than focus solely on loss. It will relate closely to a cultural center as well; however, it will not be from the outside looking in to Native American heritage. Rather, it will be a place for the indigenous community to utilize in whatever way they wish.



PRECEDENT ANALYSIS

MUCKLESHOOT SMOKEHOUSE



FIG. 2 MUCKLESHOOT SMOKEHOUSE

MUCKLESHOOT SMOKEHOUSE



client:
architect:
location:
size:
completion:

Muckleshoot Tribe
Mahlum Architects
Auburn, WA, USA
16,600 sf
August 2013

typology:
characteristics:

Communal Space
Wood log structure

INTRODUCTION

Built on the Muckleshoot Indian Reservation near Tacoma, Washington, the Muckleshoot Smokehouse is the first longhouse built for the Muckleshoot Tribe in over 100 years. Traditionally, smokehouses are used to smoke meat and fish (as the name implies); however, this longhouse was built for multi-use purposes and to observe the traditional Smokehouse or Seowyn faith.

Like all other indigenous tribes in North America, the Muckleshoot's story of cultural loss and trauma has been suffered for generations. However, their resilience to rise above and create a thriving community that remembers the old ways and traditions in a modern, relevant context.

MUCKLESHOOT SMOKEHOUSE

- 1 ENTRANCE
- 2 CEREMONY
- 3 DINING
- 4 LOCAL ROOM
- 5 PORCH
- 6 WOOD STORAGE
- 7 KITCHEN
- 8 STORAGE
- 9 MECHANICAL

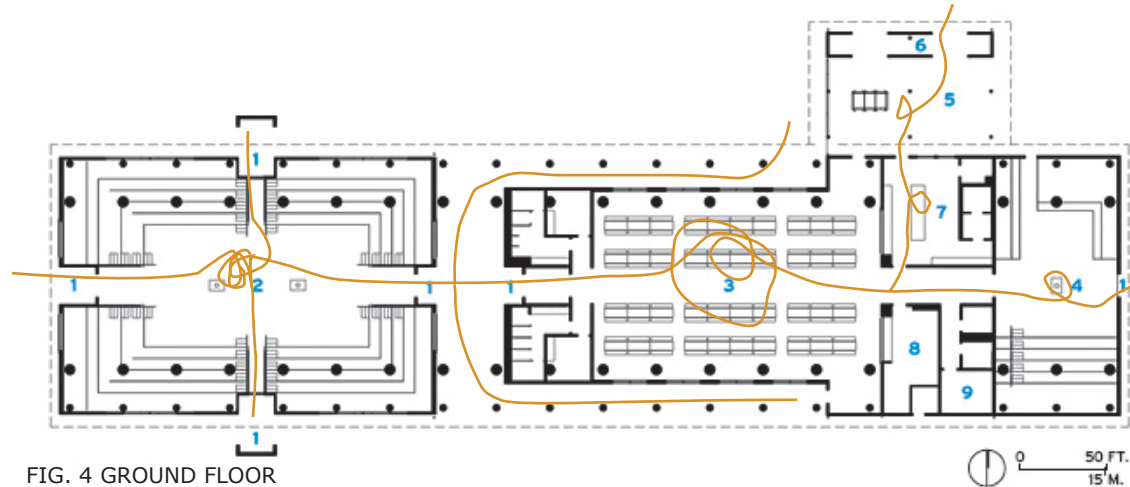


FIG. 4 GROUND FLOOR

RESEARCH

The program is built to a symmetrical, rectilinear form and structure that guides the circulation and flow of spaces beautifully. In plan, it appears reverent and sacred and can be compared with European churches throughout the ages.

The main gathering spaces are front and center, beckoning to be entered. This is further iterated by the large columns guiding circulation from the exterior to the interior.

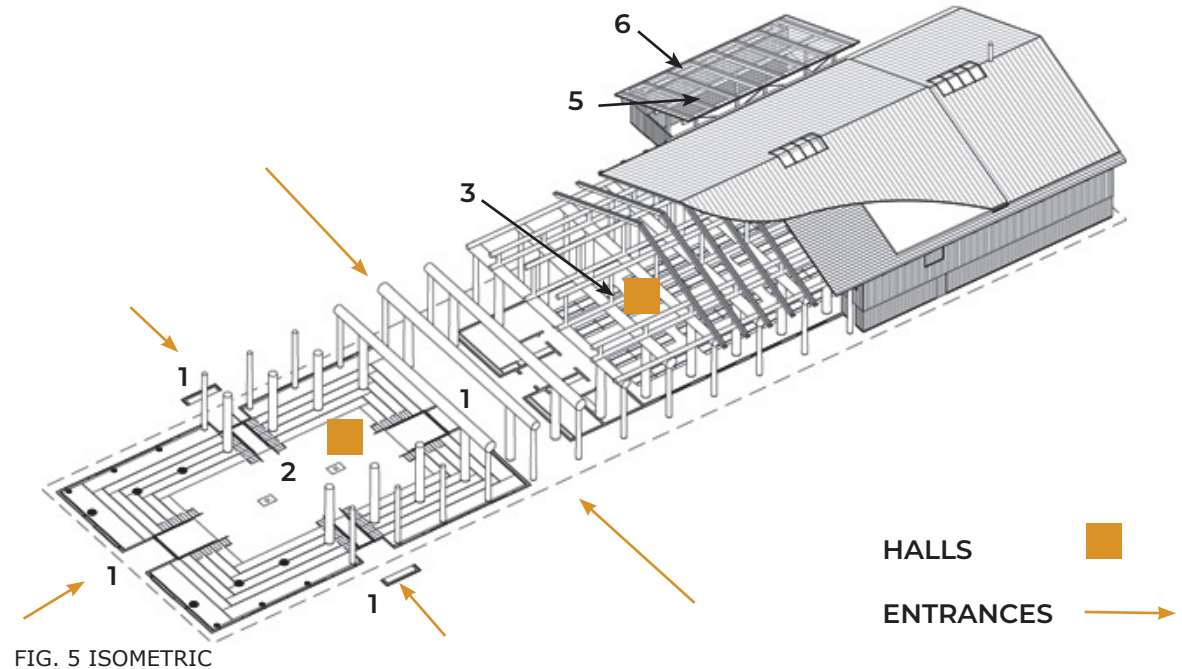


FIG. 5 ISOMETRIC

MUCKLESHOOT SMOKEHOUSE



FIG. 6 DINING HALL

USING TRADITIONAL METHODS IN A MODERN CONTEXT

The space and structure is culturally specific and sensitive to the Muckleshoot, including dirt flooring, wood heating, and the use of local materials.

While traditionally only one single space was used for ceremonies, this longhouse is defined by its two large gathering halls, its traditional purpose still intact. The first gathering space is for large meetings and traditional feasts and the second space, surrounded by dirt floors and wood bleachers is uti-

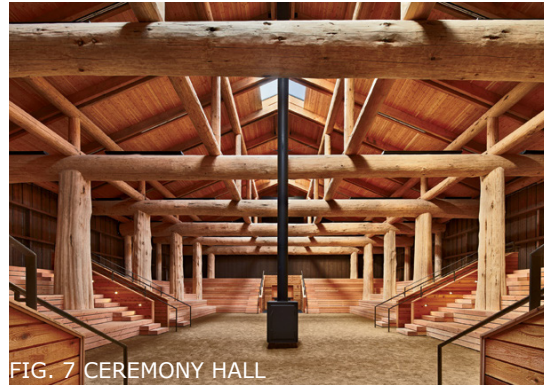


FIG. 7 CEREMONY HALL

lized for dancing and ceremonies. The dining hall can seat up to 250 people whereas the ceremony hall can hold an occupancy of 500.

Built with post and beam construction, the dark-stained redwood cedar was locally culled from the nearby Cascade Mountains. The monumental columns that frame these gathering halls like a forest call for attention and reverence. Community is made more important than the individual.

CONCLUSION

Despite the hardships endured since the dawn of European settlement on the continent, the Muckleshoot tribe has risen above cultural genocide and assimilation by using funds generated by casinos to build a traditional space that practices the old ways but is built though and for a modern setting.

The sense of community that is formed by the monumental timber structure will be a source of inspiration for the community center this thesis proposes. The use of local materials will also be vital in creating a sustainable piece of architecture that simultaneously respects old American Indian teachings of respect and reverence for the land.

SAYAMA LAKESIDE CEMETERY PARK



FIG. 8 COMMUNITY HALL AND REFLECTION POOL

SAYAMA LAKESIDE CEMETERY PARK



FIG. 9 COMMUNITY HALL INTERIOR

client:
architect:
location:
size:
completion:

Boenfuyuki Foundation
Hiroshi Nakamura
Saitama, Japan
6,430 sf total
2013

typology:
characteristics:

Community Hall and Chapel
Integration of architecture into nature

INTRODUCTION

Hiroshi Nakamura's Community Hall and Forest Chapel for Lake-side Cemetery Park in Sayama, Japan, are architectural pieces that gracefully address the sensitive subject of death.

After winning a competition to design the Community Hall, he was also commissioned to create the Chapel for the burial center's 40th anniversary.

What makes this case study relevant is that it addresses two different needs for the user in regards to dealing with death- the need for reflection and quietness and the need for a communal space.

SAYAMA LAKESIDE CEMETERY PARK

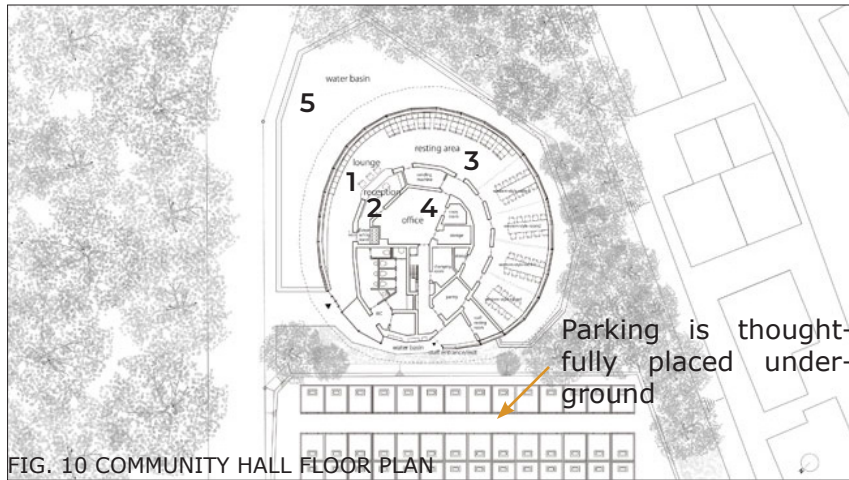


FIG. 10 COMMUNITY HALL FLOOR PLAN

- 1 lounge
- 2 reception
- 3 reception area
- 4 office
- 5 water basin

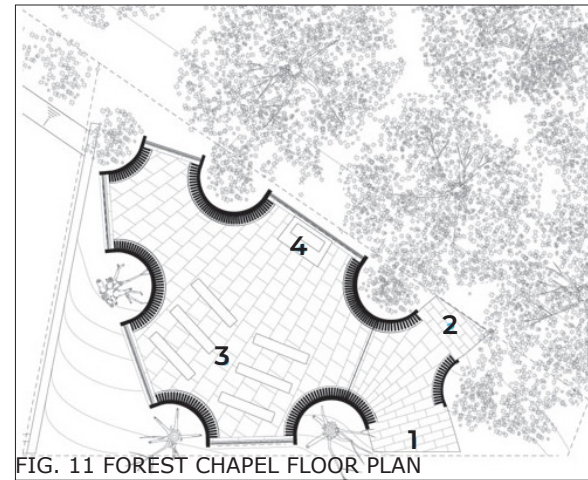


FIG. 11 FOREST CHAPEL FLOOR PLAN

- 1 entrance
- 2 accessible entrance
- 3 seating
- 4 altar

RESEARCH

COMMUNITY HALL

Located just past the Tokyo suburb of Sayama's commercial center, the Community Hall is the welcoming element into the cemetery- the passage from the worldly into the spiritual. Built into a hill, the hall is a nonuniform, one level structure that provides a

resting place for visitors. Parking is located beneath the structure while a reflecting pool surrounds the hall, the interior creating strategic views to the outside.

FOREST CHAPEL

In contrast, the chapel provides a space for quiet reflection. Nestled deep within the cemetery on a triangular-shaped site, the building

parallels praying hands that peak sharply to the heavens while the interior encloses a place for contemplation. Also, the chapel acts as an extension of the adjacent woods, reiterating the importance of the spiritual and its connection to nature.

SAYAMA LAKESIDE CEMETERY PARK



FIG. 12 FOREST CHAPEL



FIG. 14 FOREST CHAPEL VIEW FROM ABOVE

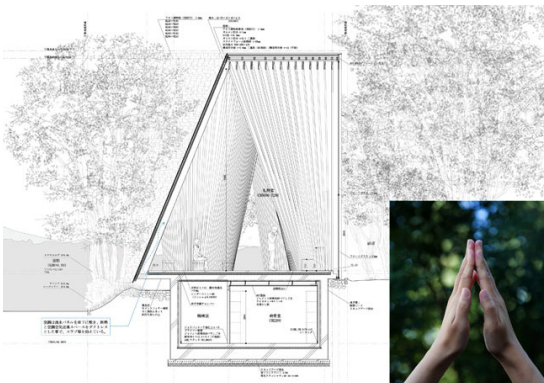


FIG. 13 FOREST CHAPEL SECTION & INSPIRA-

CONCLUSION

These two buildings are highly sensitive to their surroundings and towards the delicate nature of death. Yet Nakamura was able to beautifully bring them together while simultaneously separating them in regards to the different needs of intimacy and privacy. This separation between community and sacred reflection can influence the nature of my proposed building typologies.

Integrating the structures into the landscape shows the connection between the spiritual and the natural. This deep connection to nature found in Japanese culture is also fundamental to Native American philosophy. Adopting this same method in my buildings will reiterate the sacred connection of the land to spirituality.

CENTRE CULTUREL JEAN-MARIE TJIBAOU



FIG. 15 CENTRE CULTUREL JEAN-MARIE TJIBAOU

CENTRE CULTUREL JEAN-MARIE TJIBAOU



FIG. 16 TJIBAOU CULTURAL CENTER STRUCTURE

client: **New Caledonian Government**
architect: **Renzo Piano**
location: **Rue des accords de Mantignon**
size: **8550 sqm**
completion: **1998**

typology: **Cultural Center**
characteristics: **Relationship to site and organic structures**

INTRODUCTION

Just like the Guggenheim Bilbao and the Sydney Opera House, the Jean-Marie Tjibaou Cultural Center revitalized a city, becoming an architectural pilgrimage of sorts for the Pacific island of New Caledonia.

Renzo Piano was selected to create a center for the Kanak indigenous people by the New Caledonian Government to improve strained relationships between the natives and other inhabitants and promote and revive Kanak culture.

Piano's internationally acclaimed design delicately and thoughtfully incorporates traditional elements of Kanak culture and the importance of context and the environment.

CENTRE CULTUREL JEAN-MARIE TJIBAOU

RESEARCH

Initially inspired by traditional housing of Kanak chiefs, the design transformed into the well recognized seashells that riddle the coastline also referencing a traditional Kanak village. A total of ten shells are built into the hills and range from 20 to 28 meters in height. Inside and between each shell is a museum that commemorates Kanak heritage.

The museums are built to traditional construction methods as much as the design would allow. The craftsmanship is evident; yet more sophisticated construction technology is utilized. Some may see this as a disservice to Kanak heritage. Yet it can be perceived as one positive modern interpretation of Kanak culture. However, there is one other inconsistency. Instead of using locally sourced materials, wood was imported from outside the island.



FIG. 17 TRADITIONAL KANAK HOUSE



FIG. 18 CONSTRUCTION DETAIL

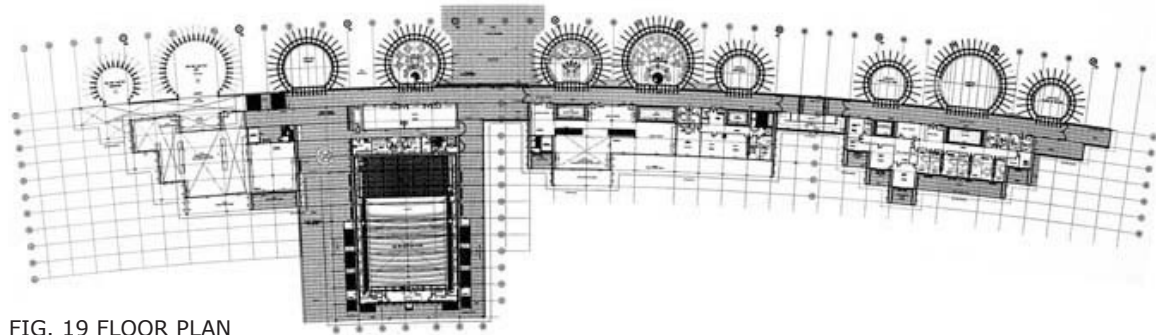


FIG. 19 FLOOR PLAN

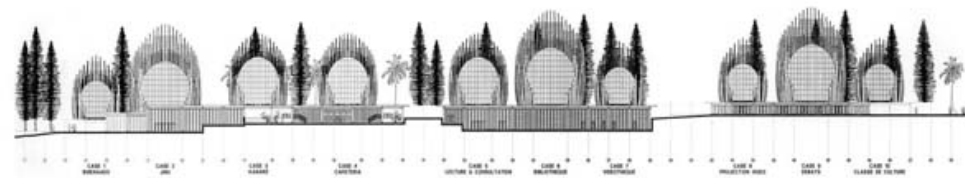


FIG. 20 NORTH ELEVATION

CENTRE CULTUREL JEAN-MARIE TJIBAOU

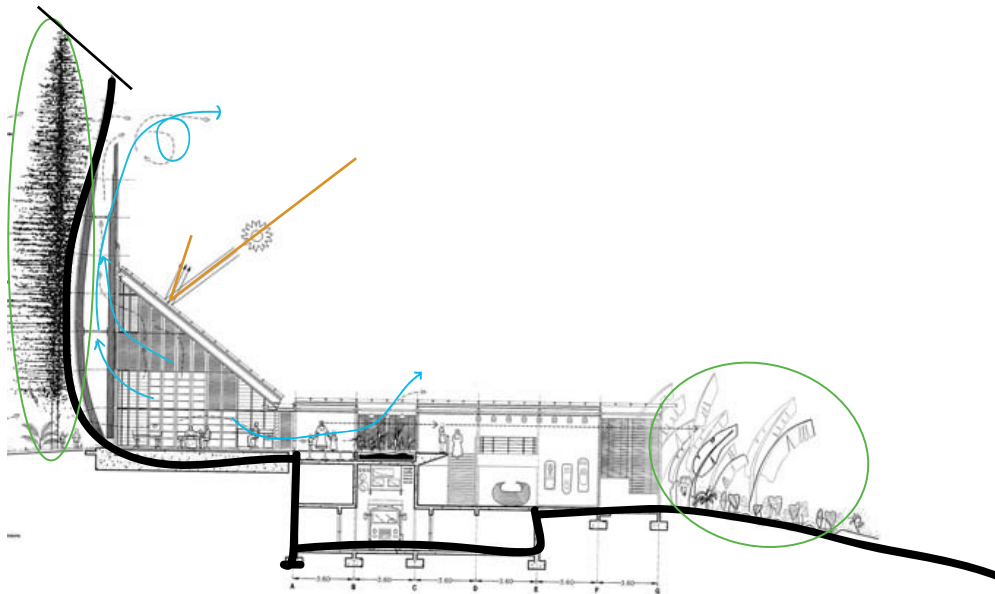


FIG. 21 SECTION AND PASSIVE SYSTEMS

The height of the shells in relation to the trees creates an aesthetic harmony that further iterates the importance of site and context. Building portions underground also portray a metaphorical relationship to nature.

The voids along the outer shell and fenestration throughout create a passive ventilation system successfully creates a natural air

supply that eliminates the need for air conditioning.

The site is also angled toward the southwest, receiving maximum sun exposure.

CONCLUSION

The importance of site and context as prerequisites for passive performance and culturally sensitive design are clearly evident throughout the Tjibaou Cultural Center. The case study was chosen for these reasons.

Yet the traditional-technological tension is reminiscent of the island's own political and cultural dissent. How may this proposal strive to be even more culturally and contextually correct while re-interpreting where necessary traditional views and practices?

While not meant to be a museum, this thesis will utilize the effective strategies of design that pays homage to indigenous people and passive design performance that will further integrate the architecture as an extension of the site.

MAJOR PROJECT ELEMENTS



PUBLIC & SHARED SPACES

These spaces will consist of open and wide areas for small gatherings, circulation, and a place for quiet reflection and prayer. While more private than the community center, these communal spaces will provide a level of shared intimacy among users.

PRIVATE SPACES

These rooms will consist of individual and group counselling rooms, private spaces for reflection and memorial, as well as administration offices.

OUTDOOR SPACES

It is vital to include areas that connect the users with nature. Outside spaces for privacy and reflection will be integrated as a part of the natural landscape and subsequently, the healing process.

MAJOR PROJECT ELEMENTS



PUBLIC & SHARED SPACES

To instill a sense of community and kinship, the public spaces will include a large gathering or meeting hall designated for multiple functions and uses as well as smaller meeting rooms for smaller or more private functions.

PRIVATE SPACES

These spaces will include kitchen and prep rooms and dressing areas to ensure gatherings run smoothly. Offices for administration will also be implemented.

OUTDOOR SPACES

An outdoor park to connect both users and the building to nature will be integrated throughout the site. Making a seamless connection to the natural and built environment with minimal impact is vital to create a sense of oneness and connection to nature- an important aspect of Native American spirituality.

USER / CLIENT DESCRIPTION



CLIENT

The public client of these buildings will be the Little Shell Tribe of Chippewa Indians of Montana. A landless people without federal recognition, it is important that their voice is heard despite the political and cultural setbacks this Indian nation has faced.

While they will “own” the buildings and may make more use of the community center (in particular the offices), it will be a space that will lend itself to all nations.

Also, working with the city of Great Falls, Montana will be necessary as it owns the land for the proposed site.

USERS

While the architecture will pay homage to the Cree and Ojibwe people of Montana for the purpose of poetics and design, the users of both places will be members of the Native American community of Montana, both young and old.

However, opening of the spaces and facilities to other tribes outside of the state of Montana will be more than welcomed, especially during pow wow and round dance seasons.

ADVISORS

Including members of the indigenous community of Montana will be key to the success of this thesis. Speaking with elders, youth, and those in between will provide vital input of how the spaces can and should be utilized.



THE SITE

THE SITE

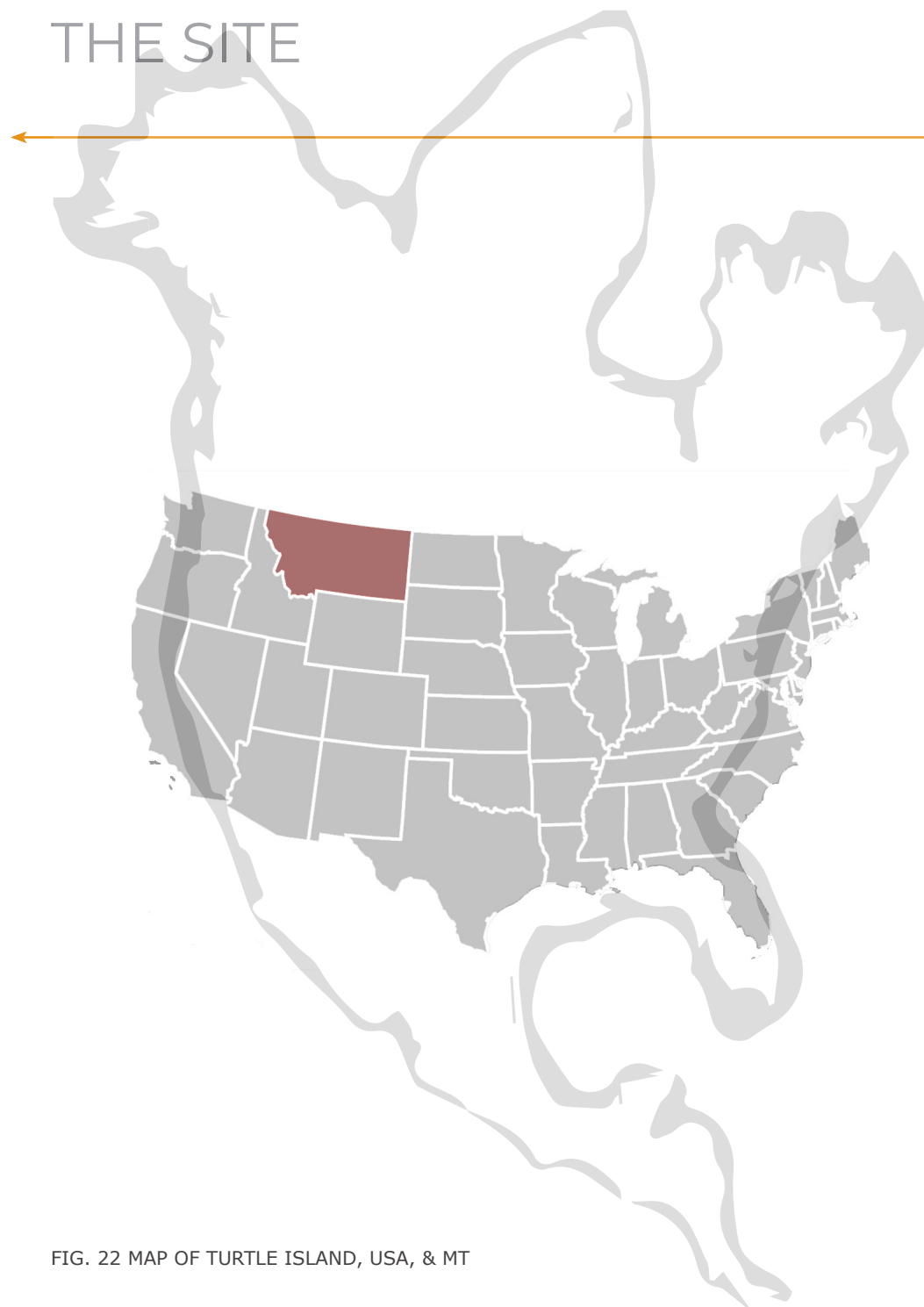


FIG. 22 MAP OF TURTLE ISLAND, USA, & MT



FIG. 23 MONTANA & GREAT FALLS MAP

GREAT FALLS, MT, USA

Montana, USA, is home to various Plains Indian tribes whose traditional homeland lies within or nearby the established state boundaries. Located just outside of the Rocky Mountain Range, Great Falls lies within a beautiful, dry, rugged landscape of its own.

Home to 59,479 residents, 4.92% are of Native American heritage. While this seems to be a small percentage, Great Falls has been a hub for urban Native Americans since they were displaced by the encroaching white settlement of the 1800s. Specifically, many of the Plains Ojibwe and Cree of Montana have grown to call this home

THE SITE



FIG. 24 SATELLITE IMAGE OF GREAT FALLS



FIG. 25 SATELLITE IMAGE OF HILL 57

HILL 57

Originally a shanty town for the dis-enrolled and disenchanting landless Ojibwe, Cree, and Metis of Montana, today Hill 57 is a place for ceremonies and holds a special place for the many Natives who lived here at one time.

Located just on the outskirts of Great Falls, its elevation and sharp contrast with the rest of the city, showing the difference between western urban planning and Native low-impact living, the site will provide a meeting ground for both urban and reservation Natives.

PROJECT EMPHASIS



How can space contribute to the unraveling of trauma and promote healthy grieving while simultaneously meet the needs of community and fellowship?

What principles of traditional Indigenous gathering can render, through architecture, healing and peace of mind for its users?



CULTURE AND CONTEXT

Since this thesis proposes two physically separated but interwoven-purposed typologies, the goal is to create spaces that meet the various levels and needs for privacy and intimacy. How can the needs and program of a cultural/community center influence the design and program of a healing/rehab center and vice versa, specifically for the unique challenges faced by many Native Americans?

While marrying the two successfully will be challenging, there are many similarities that can be ex-

pounded upon. The need for social connection and introspection is vital for the healing process. One can not truly be whole with only one need met.

Due to the sensitive, almost-sacred nature of the site along with Native American philosophies of respect for the land, it is necessary and vital for the centers to be one with the environment. Minimal impact and passive design strategies will be used throughout.

THESIS GOALS

ACADEMIC

The academic goals of this thesis for myself are to create knowledge, take said knowledge, and apply it through the medium of architecture. I plan to utilize and exhibit to the best of my ability all of the knowledge, critical thinking, and problem solving skills I gained here at North Dakota State University.

Specifically, I want to shine light on the social issues that are unseen or disregarded by society at large but inspire hope internally through design.

PROFESSIONAL

Professionally, I would like to create a thesis that will be a proud final marker of my education at NDSU; one that will showcase through my portfolio the various design abilities I have and catapult me into the workforce.

Also, I would like for my thesis to be a point of discussion regarding the theoretical aspects of architecture and potentially inspire future real-life building design and construction.

PERSONAL

As my final bow at NDSU is approaching, I wish to create something of great meaning and value not only for myself, but for others. In total honesty, I have had trouble weaving my desire to create with my heart for people within the architecture program. My aspiration for this thesis is that it will be the conduit in which I can express both longings and passions.

I learned much of the importance of the built environment and good design that is both practical and poetic. My respect for the profession has grown immensely and I plan to carry this wisdom into my own life.



END OF A LONG JOURNEY

While this nearly 5 year journey has not been easy with seemingly endless late nights, much tears, and abounding stress, I don't regret one moment. I learned much about myself- my strengths, weaknesses, how much sleep I need to be a functioning human being, the beauty and difficulty of problem solving, and many other things. I've learned to love the process, even when it is very arduous. The final result may be the goal, but it is entirely dependent on how one gets there.

Thank you, NDSU.

PLAN FOR PROCEEDING

RESEARCH DIRECTION & DESIGN METHODOLOGY

Being that this thesis touches upon highly sensitive subjects, thorough scholarly research regarding Native American history on the Plains, traditional practices, methods of building, and the experience of space among the Montana Ojibwe/Cree is necessary in order to make sound and accurate design decisions.

Research and case studies of old and new sustainable building practices and minimal impact methods are crucial to an environmentally conscious design that seeks to be one with the land.

Qualitative data such as interviews of Native people and professionals will influence and shape design decisions in ways that ac-

ademic research can not. It will bring a personal element to the process that is more telling and sensitive to the program and user needs. While the Ojibwe/Cree will be influential regarding the actual design, many of these traditional principles are universal among many tribes and I wish not to exclude users.

In regards to the healing center and community center, case studies that are not only relevant through typology but sensitive to site, context, and culture will lend a variety of design thought and inspiration. However, researching these specific and related typologies such as cultural, wellness, and counseling centers will help form and develop a successful building program.

Digital and physical analysis of

the research will be conducted through drawings, charts, and diagrams, and other forms of graphic representation.

DOCUMENTATION OF THE DESIGN PROCESS

Design progress will be documented on a weekly basis via photographs and scans of models, drawings, sketches, and writings in a digital format to be later accessed and reviewed when needed. A physical copy will also be composed to aid and act as a reference in order to further design.

SCHEDULE

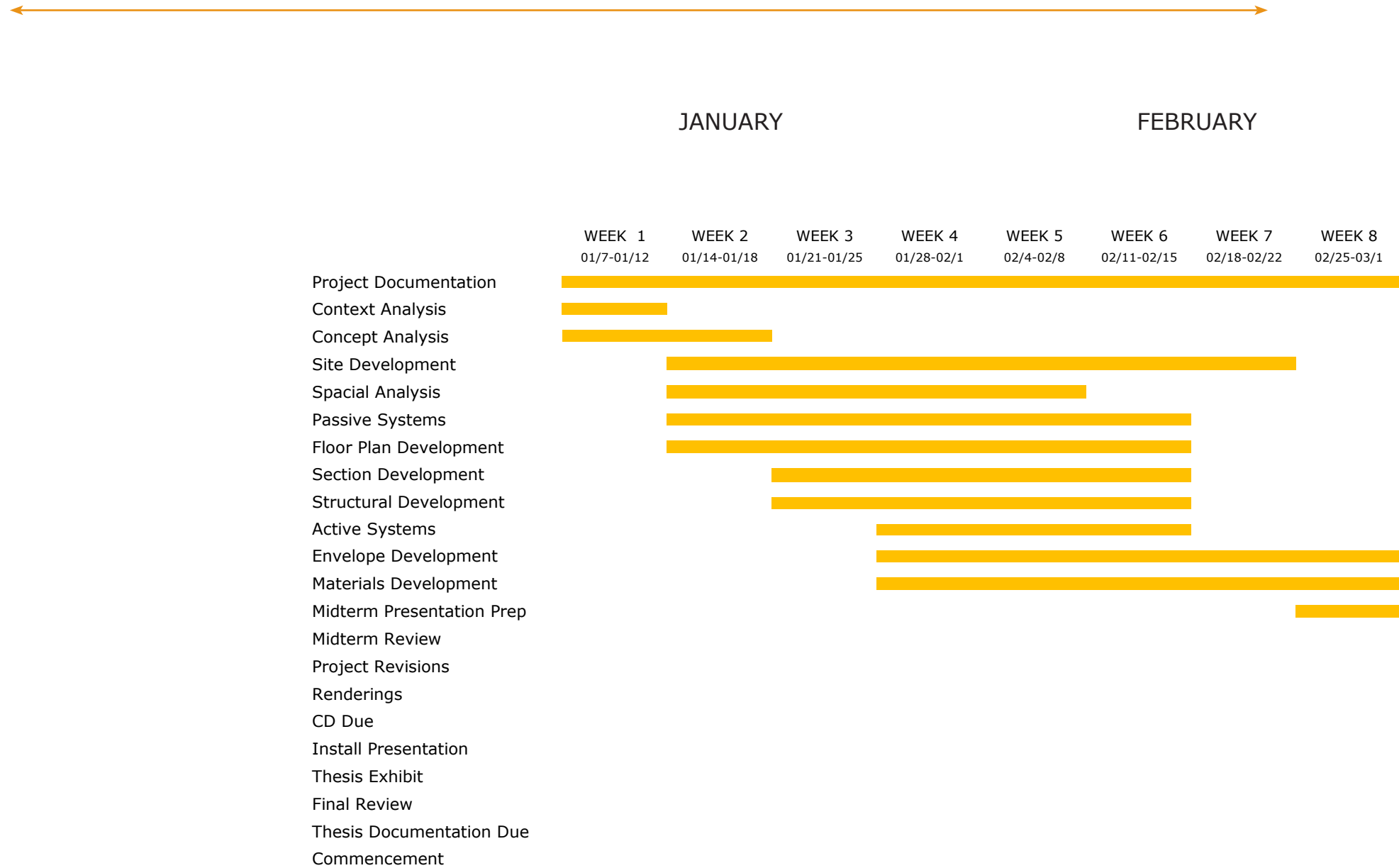


FIG. 26 SPRING SCHEDULE

SCHEDULE



MARCH

APRIL

MAY

WEEK 9	WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	WEEK 15	WEEK 16	WEEK 17	WEEK 18
03/4-03/8	03/11-03/15	03/18-03/22	03/25-03/29	04/1-04/5	04/8-04/12	04/15-04/19	04/22-04/26	04/29-05/3	05/6-05/10





THESIS PROGRAM

RESULTS FROM THEORETICAL PREMISE RESEARCH



American Indian and Alaska Native Mental Health: Diverse Perspectives on Enduring Disparities by Joseph P. Gone and Joseph E. Trimble

In their article American Indian and Alaska Native Mental Health: Diverse Perspectives on Enduring Disparities, both Joseph P. Gone and Joseph E. Trimble discuss the mental “health disparities” that are rampant amongst American Indian and Alaska Native communities. They discuss the shockingly high rates of suicide, the “debilitating distress and dysfunction from substance abuse, violence, and trauma” (132) well as the overwhelming dependence on government agencies and funds to provide mental healthcare. In particular, I am concerned with how Natives who do not have direct access to mental healthcare are affected and what treatments are or are not effective.

According to Gone and Trimble’s research, in 2006 the Indian

Health Service estimated that an estimated 55% of Native Americans received healthcare through the Indian Health Service, also known as IHS. While this is beneficial to those living on or nearby reservations, this means that roughly 45% of American Indians and Alaska Natives do not receive IHS, including mental health service provided by the IHS. This would also indicate that those without access to IHS either do not have healthcare or may use mainstream healthcare.

While mainstream healthcare is available to American Indians and in addition the social stigma behind those who have mental health issues and unavailability of IHS medical services for some Native Americans, Gone and Trimble state another major reason for the lack of healthcare- that being

the overwhelmingly high poverty rate among Native Americans. This suggests the inability to secure health insurance through private insurance companies or job-based health coverage (143). While Medicaid is also offered for low-income households, how much money is allocated to mental health services is unknown (143).

While these statistics are disheartening, Gone and Trimble reveal some light of mental healthcare services that have been beneficial to American Indian people such as Cognitive Behavioral Therapy (also known as CBT) as well as the Zuni Life Skills Development Curriculum that provided counselling sessions to Zuni youth at risk for suicide. Both studies showed an increase in “pleasant events” and a decrease in suicidal tendencies

RESULTS FROM THEORETICAL PREMISE RESEARCH



and depressive moods (146). However, Gone and Trimble state that there is still quite a large lack in research and clinical studies on the effectiveness of mental health services administered to Native Americans (147).

Besides using existing Cognitive Behavioral Therapy and Evidence Based Treatment, clinicians are recognizing the importance of “cultural competence in Indian Country”. Arising from the “apparent incompatibility of between conventional psychotherapeutic approaches and the cultural practices” of Native Americans (148), cultural competence is a way clinicians can tailor treatment for those of Native American descent in a way that is sensitive to their culture. However, this can prove to be difficult as there are

many cultures within the Native American community and there is not enough evidence to conclude that this sort of treatment does in fact mend the mental ailments for Native American patients as many Natives may perceive that culturally competent, Evidence Based Treatment- regardless of its sensitivity to Native Culture- is fundamentally tainted by “Euro-American colonization” (149).

Despite the staggeringly high rates of suicide, PTSD, drug abuse, and violence among American Indians, access to mental health care that is readily attainable, relevant to their culture as well as successful is still desperately needed (149). Gone and Trimble conclude that action needs to take place for America’s Indigenous people and the need of more studies to be conducted in order

to affirm what sorts of treatments work best and why. In addition, both authors conclude that, on account of research done by Maria Yellow Horse Braveheart, historical trauma wrought on by colonization is ground zero for the mental distress among Native Americans (150). In conclusion, reclaiming cultural identity and traditional knowledge in the form of “culture as treatment” once so strongly adhered those in the past is the beginning of wellness (151).

RESULTS FROM THEORETICAL PREMISE RESEARCH



Healing the community to heal the individual

Literature review of aboriginal community-based alcohol and substance abuse programs

by Ashifa Jiwa

The Community Mobile Treatment, also known as the CMT model, was created by Paul Hanki in British Columbia, Canada in 1984 as a way for community involvement to be part of the healing process during recovery for substance abusers in Indigenous communities. To briefly summarize Jamie Wiebe and Kathy Huebert in their article Community Mobile Treatment. What it is and How it Works, in order for the CMT model treatment to be utilized, "the community must acknowledge that substance abuse problem exists and be committed and involved in addressing the problem" (Wiebe & Hebert, 1996). After a community is ready, a period between 21 and 28 days of treatment for drug and alcohol abuse, the community brings in addicts along with their families (Wiebe & Hebert, 1996).

In her review of the CMT model for community and cultural involvement for addiction recovery in First Nation communities in Canada, Ashifa Jiwa explains the effectiveness and benefits the CMT model holds in comparison to more traditional modes of treatment typically offered to Indigenous people. Much of Canada's First Nation population resides on remote reserves and, like the United State's Indigenous population, are no stranger to substance abuse. However, she states that the typical mode of treatment for Indians on reserves are referrals to 3 to 6 week treatment center programs far off of the reserve and that, usually, there is little or non-existent aftercare and in many cases, these people return to the same conditions from which they left.

In response to this ineffective treatment strategy, her review continues with the strategies of the CMT model as "a community-based approach to prevention treatment, and aftercare programs" that attempt "to address these environmental factors by extending healing to the community level." Instead of treating drug and alcohol addiction exclusively by hoping to reduce to amount of consumption, engagement and development from the community is part of the process to recovery.

Furthermore, Jiwa explores the Indigenous concept and philosophy of health and wellbeing through the medicine wheel where the spiritual, physical, mental, and emotional facets are all intertwined and part of the healing process as well as the CMT

RESULTS FROM THEORETICAL PREMISE RESEARCH



model. While the 21 to 28-day period is actively utilized for the community mobilized treatment and aftercare, Jiwa states that is usually takes anywhere from one to two years to “mobilize” the community to “promote a culture of sobriety and support for recovering individuals.”

Follow-up investigations show that up to 75% of community members partook in the substance recovery program and that in some areas, like Anahim Lake, British Columbia, nearly 75% or members remained drug and alcohol free.

Through her research, Jiwa concludes that it is fundamental for community and cultural-based treatment to be strong leadership, strong community involvement, adequate funding

for such programs, as well as the infrastructure to sustain a longstanding and continual program.

RESULTS FROM THEORETICAL PREMISE RESEARCH



Regarding the research of Joseph Trimble and Joseph Gone, it is disheartening to say the least that despite the overwhelming need that Native Americans have for mental health services, trends are not changing nor are foreseen to change in the near future towards better mental care and wholeness. As a member of the Native community myself, I have seen this trend far too often than I would like to admit. Those grieving in unhealthy manners, suffering mental illness or trauma, and battling substance abuse are either deemed the normal for Indigenous people, from within and outside the community, are thought to be lost causes, or simply do not know how or where to receive help. And, some do not see the need to seek help as well.

However, Aisha Jiwa's review of

Paul Hanki's Community Mobilization Treatment Model's effectiveness amongst Indigenous communities appears to be a ray of hope for a community ravaged by hopelessness.

The interesting aspect of the Community Mobilization Treatment Model is that, rather than only treating an individual with a substance abuse problem with the exclusive intention to rid addict of said addiction, it treats and addresses the larger issue of healing a community that promotes and creates an even stronger sense of community.

Through these accounts do I hope to reinforce my thesis as well as create a conduit through which architecture and sensible design may help ease suffering and create a space through which com-

munity may be fostered and consequently bring healing.

As stated previously in the proposal, to insinuate that architecture would solve or eliminate this problem would be pretentious as well as severely ignorant. But when architecture is broken down into its most elementary form as shelter and offer itself physically and metaphorically as a barrier from unwanted and potentially harmful elements from nature and man-made environments, protection and healing is given.

As my thesis proposes to create healing, and oneness between and within Native American individuals and communities within the Great Falls area, creating spaces that encourage gatherings, openness, as well as culture will be at the forefront of the program.

PROJECT JUSTIFICATION

According to epigenetics, the study of biological changes in gene expression, “circumstances in life can cause genes to be silenced or expressed over time (2018)” and that trauma experienced by one’s ancestors can also be passed down through generations, affecting how these new generations react to and manage stress and traumatic situations. Given this information, it’s believed that historical and inter-generation trauma has been “woven into the DNA” (Pember, 2017) of Native Americans since the colonization of the western hemisphere in 1492. Genocide, forced assimilation, culturicide, and broken treaties delivered a detrimental blow to Native Americans and Alaska Natives, resulting in the loss of language, culture, and identity. Furthermore, this forced assimilation and philosophy of

“kill the Indian, save the man”, through the residential school system of the last 100 years in the US and Canada, created an entire generation of abused and lost children who developed unhealthy grieving and coping skills to try and alleviate the pain and suffering they survived. And like dominos, their children and their children’s children suffered along with them along with their own unique struggles.

Today, Native Americans suffer the highest rates of poverty, drug and alcohol abuse, suicide, are more likely to experience traumatic and violent events, and are the least educated ethnic group in the US. However, regardless of how real these struggles and setbacks are for America’s First People, much of American society remains ignorant, unaware of or indifferent to

the modern existence of a people many only perceive through the lenses of history and museums.

As a member of the Native American community, I as well as my relations are no stranger to the above-mentioned problems that persist throughout Indian country (on reservations and in urban areas alike). While the scope of my project is rather local and is to function and be utilized largely by American Indians themselves, to find creative, beautiful, and sensitive solutions through an architectural/design-based medium is a way to acknowledge and address the suffering, offer peace of mind, and restore a sense of resiliency and pride, even in the slightest degree, to my people.

This project revolves around two passions of mine- the Native

PROJECT JUSTIFICATION



American community and design. Using the knowledge I've gained over the past 4 years at NDSU will help with creative solutions to meet these social issues. Architecture and design by itself will not solve these problems. But it can certainly be a vessel or house (even in the most elementary sense) to foster community.

Creating a place for gathering and healing for Native people will help start the healing process in which members can overcome their own obstacles and be healthy individuals in their community. Creating a home for the landless Chippewa of Montana will bring together a scattered nation that has fought resiliently to keep their culture and history alive as well as simply provide a house for these people of which they have not had in over one century. The research

required alone to completely understand this project will allow for well-informed design decisions.

Fostering the knowledge and skills I've gained through my education towards creating solutions for a social issue is challenging. As such, this thesis project will certainly put my knowledge to the test. But I also look forward to the new knowledge and understanding that will be birthed as a result. Much of what is renowned in architecture is found in large urban centers, grand ancient cities and structures, as well as skyscrapers competing to touch the heavens. And rightfully so. It takes a large amount of time, money, and investment to accomplish such feats. However, I find it is also important for the architectural realm to solve problems and create beautiful design

in cultures and communities that are often overlooked, of which I hope to accomplish.

HISTORICAL, SOCIAL, & CULTURAL CONTEXT

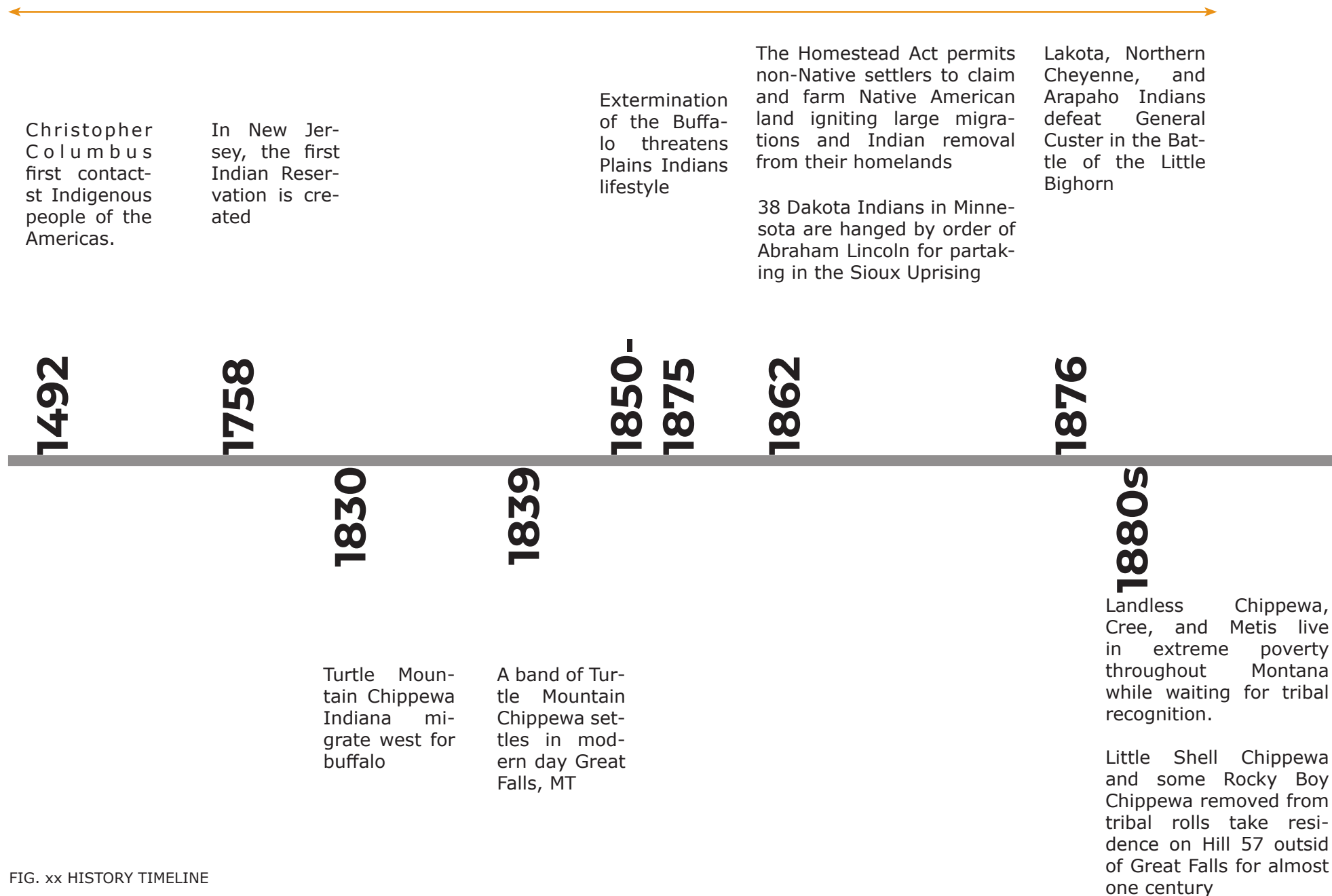


FIG. xx HISTORY TIMELINE

HISTORICAL, SOCIAL, & CULTURAL CONTEXT

US soldiers murder 150-300 Lakota Indians including women and children in what is known as the Wounded Knee Massacre

43,000 Native Americans fight in the Vietnam War

AIM members and activists occupy Wounded Knee in a stand-off with the FBI

The Indian Child Welfare Act acknowledges the removal of Indian Children to non-Native families and establishes guidelines

1890

1892

Chief Little Shell walks out of meeting after the US refuses to recognize more Mixed Bloods as Chippewa as well as sell 9.5 million acres of land for 10 cents per acre. Treaty passes without his approval and those with him flee to MT.

US Govt addresses poverty and starvation on the Turtle Mountain Indian Reservation.

1896

Many Little Shell Chippewa in Montana are mistaken as Cree Indians and shipped to Canada in cattle cars

1906

Infamous 10 Cent Treaty is recognized and landless Indians throughout Montana and North Dakota are denied govt. funds and benefits. Congress is also receiving public complaints of their residency on public lands

1965-1973

1973

1978

The Little Shell Chippewa apply for State recognition in Montana

2000

The Little Shell Chippewa become a state recognized tribe

SITE ANALYSIS

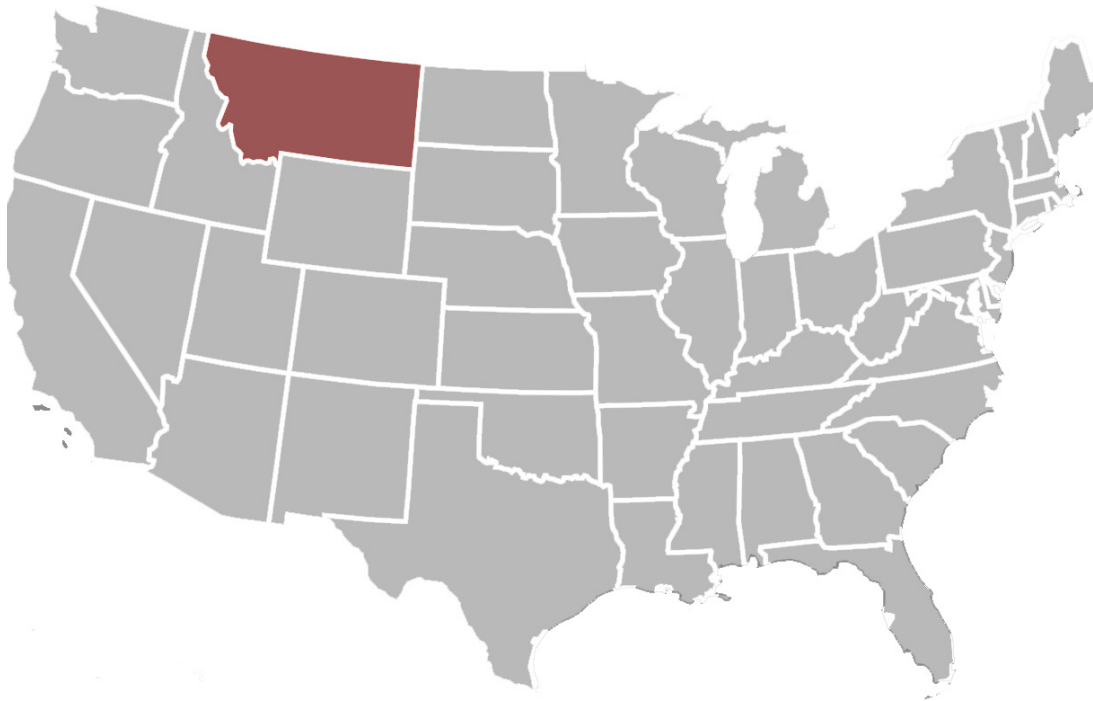


FIG. 27 MAP OF THE UNITED STATES

location: Hill 57, Great Falls, Cascade County, MT, USA

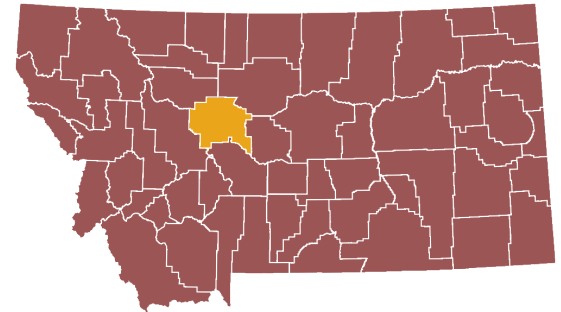
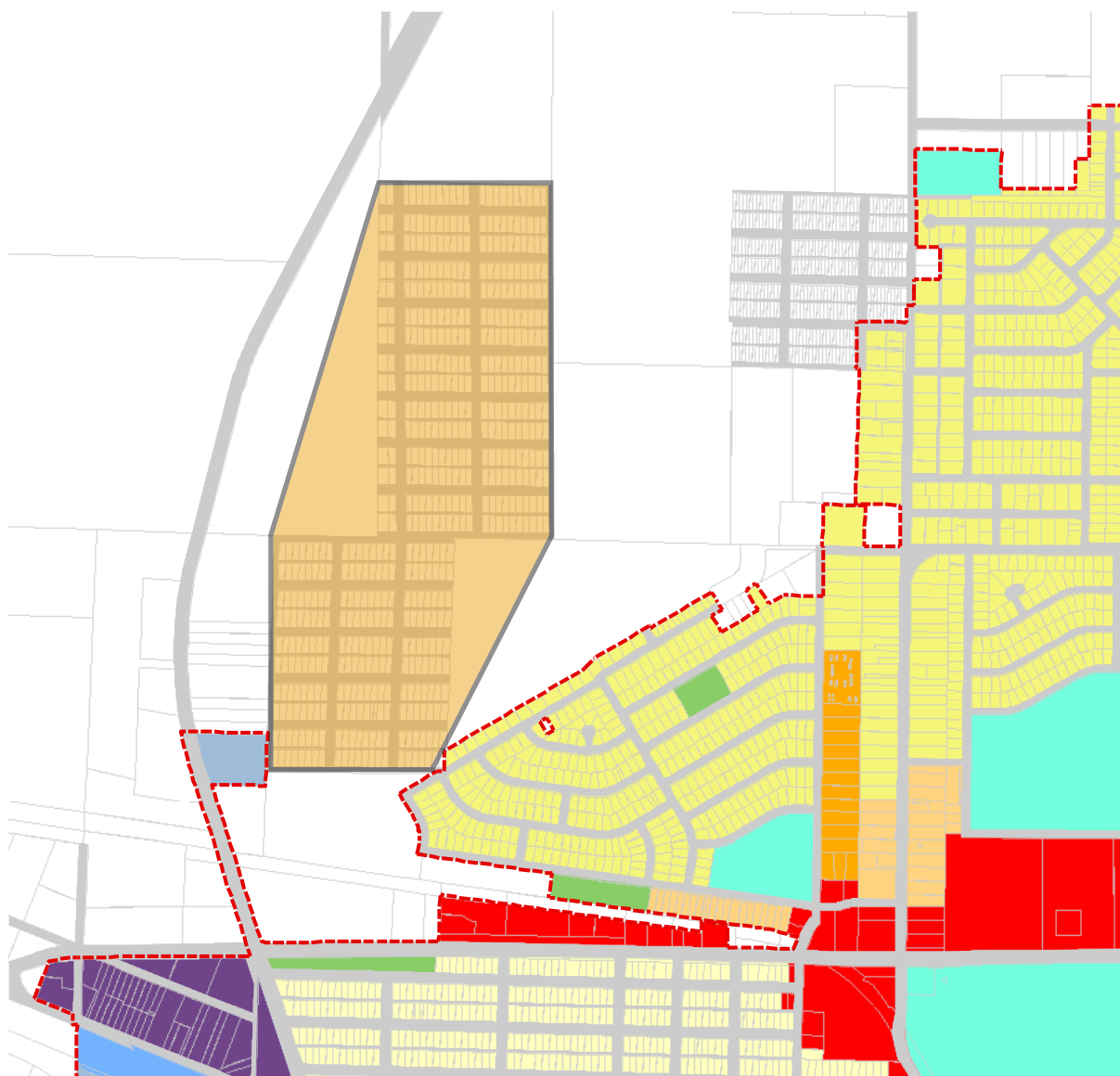


FIG. 28 MAP OF MONTANA COUNTIES



FIG. 29 MAP OF CASCADE COUNTY

SITE ANALYSIS



- M-2 MIXED USE TRANSITIONAL
- C-2 GENERAL COMMERCIAL
- PLI PUBLIC LANDS AND INSTITUTIONAL
- POS PARKS AND OPEN SPACE
- I-1 LIGHT INDUSTRIAL
- R-3 SINGLE-FAMILY HIGH DENSITY
- R-2 SINGLE-FAMILY MEDIUM DENSITY
- R-6 MULTI-FAMILY HIGH DENSITY
- R-5 MULTI-FAMILY MEDIUM DENSITY
- U UNINCORPORATED ENCLAVE
- SITE

ZONING

In this NW part of Great Falls, the site itself lies just outside of city limits in the Unincorporated Enclave Zoning. The site is surrounded by numerous types of zoning. Immediate adjacent zoning include R-2 Single Family to the SE and I-1 Light industrial to the West and SW. The residential housing is hidden when approaching the hill from the west; however, just below the hill and across Stuckey Road is much industrialization that edges the area, which will prove to be problematic to design around and with.

FIG. 30 ZONING MAP OF NW GREAT FALLS

SITE ANALYSIS



FIG. 31 NORTHERN PEAK OF HILL 57

Once a place for the landless Chippewa, Cree, and Metis Indians of Montana where they lived in extreme poverty during the late 1880s and most of the 20th century, the site is largely vacant except for the very few descendents who still reside at the bottom of the hill and for those who practice traditional ceremonies at the top.

With so much history and nostalgia attached to the area, reclaiming the site against encroaching industrialization to use instead as a platform to help the local Native community and commemorate those who lived here before is a way to remember and revitalize the local Native population.

SITE ANALYSIS



FIG. 32 AERIAL VIEW OF SITE

SITE ANALYSIS



FIG. 33 VIEW FROM STUCKEY ROAD JUNCTION



FIG. 34 S VIEW FROM STUCKEY ROAD JUNCTION



FIG. 35 W VIEW FROM STUCKEY ROAD JUNCTION



FIG. 36 LITTLE SHELL CHIPPEWA CULTURAL CENTER



FIG. 37 W VIEW ACROSS STUCKEY ROAD



FIG. 38 ENTRY VIEW INTO SITE

SITE ANALYSIS



FIG. 39 VIEW FROM BOTTOM OF SITE



FIG. 40 VIEW OF SOUTHERN PEAK



FIG. 41 VIEW OF NORTHERN PEAK

SITE ANALYSIS



FIG. 42 SW VIEW FROM BOTTOM



FIG. 43 SE VIEW FROM NORTHERN PEAK



FIG. 44 S VIEW FROM NORTHERN PEAK

SITE ANALYSIS



FIG. 45 W VIEW FROM NORTHERN PEAK



FIG. 46 N VIEW FROM NORTHERN PEAK



FIG. 47 E VIEW FROM NORTHERN PEAK

SITE ANALYSIS

Surrounding the site are single family housing units to the south and industrial plants and buildings to the west and southwest. There are even houses mixed in with large junkyards along the east side of Stuckey Road that are fenced off with a chain link fence from the rest of the hill.

The plateau, peaks, and small basin, however, are unoccupied. People no longer reside on the hill itself and there are no more built structures on the site. In 2012, the sweatlodges were burnt down for unknown reasons and the site seams now rather barren and vacant. There is a large junk pile at the bottom of the hill containing rusted metal parts, scrap wood, and rubber tires. The path leading to the top of the northern peak is riddled with rusted nails as well. Yet the organically carved gravel roads with fresh tracks are indicative that the site is still used although it appears mysteriously still and abandoned.



FIG. 48 TRESPASSING SIGN FROM STUCKEY ROAD JUNCTION



FIG. 49 SCRAP PILE AT BOTTOM OF HILL



FIG. 50 PATH LEADING TO TOP OF NORTHERN

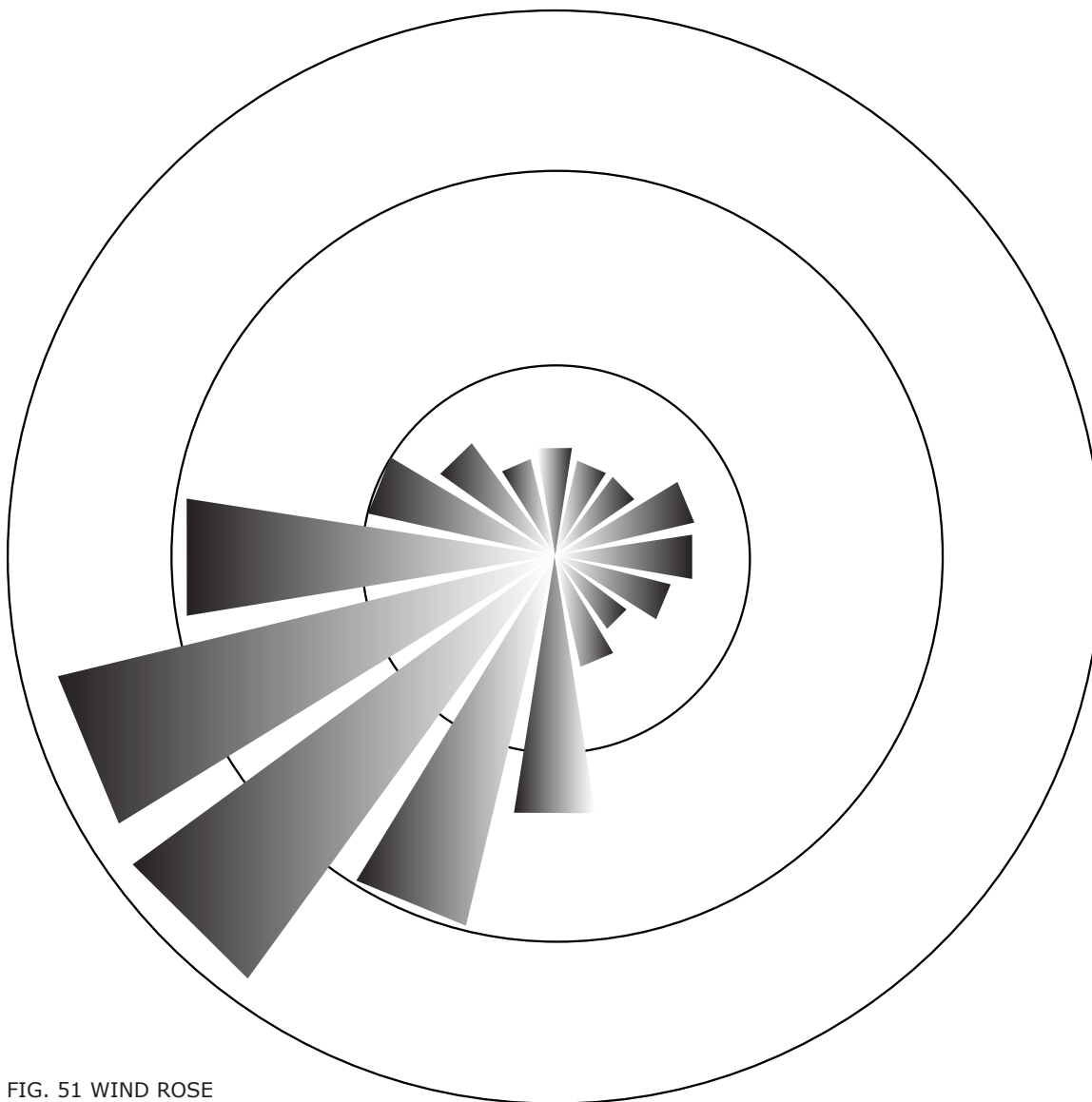


FIG. 51 WIND ROSE

The strongest and most predominant winds for Great Falls and the Hill 57 come from the West and South-West towards the East and North-East.

As the site is very open and the large basin at the bottom faces the South and South-West, the Hill, especially at the top, is very windy. Designing a landscape with natural wind barriers as well as orienting the building in a way that alleviates or deflects the wind efficiently is important to make a comfortable environment for the users as well as to reduce energy costs.

SITE ANALYSIS



Hill 57 is considered a small plateau (named “Little Shell Hill” by the Natives) and consists of two peaks (named “Twin Peaks”). The rocks that create the hill are a part of the Colorado Group that is made up of mostly shale. Within this particular group lies the Blackleaf Formation, a type of shale that consists of sandstone that is fine-medium grained and found throughout Montana. And, beneath the Blackleaf layer, lies calcerous sandstone. Under the hill itself is Flood Member Rock.

These hard layers of sandstone are ideal to build upon as they have a high load bearing capacity.



FIG. 52 Aerial View of Site

SITE ANALYSIS

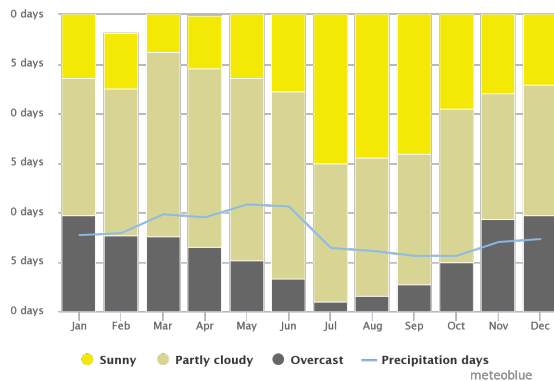


FIG. 53 SUNNY AND CLOUDY DAYS

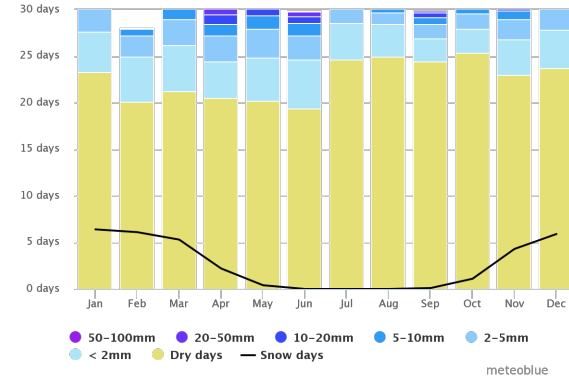


FIG. 55 PRECIPITATION

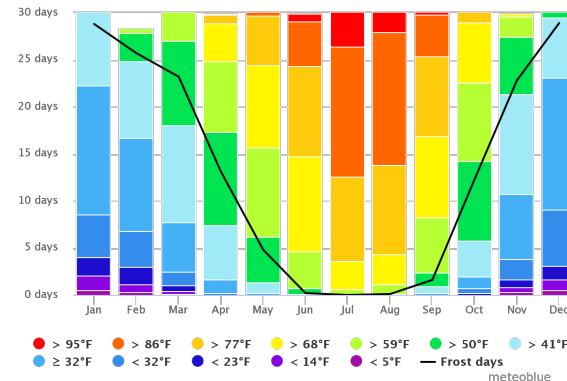


FIG. 54 TEMPERATURES

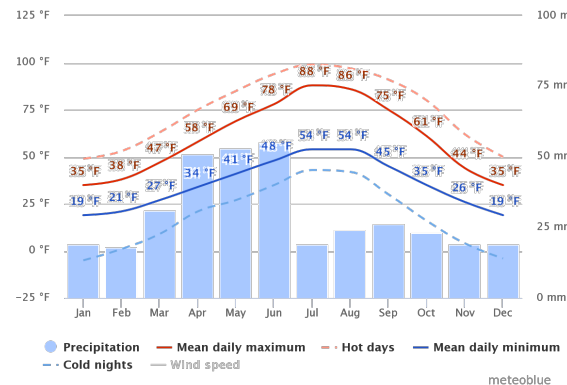


FIG. 56 TEMPERATURE AND PRECIPITATION

Great Falls' climate is classified as semi-arid. During the summer months, it is typically hot and dry with many thunderstorms throughout the season and in winter is known for being very cold and long with high amounts of snowfall.

Considering the amount high amount of precipitation and the wide swing in temperatures throughout the year, passive design strategies will prove to be a challenge. Also, innovative drainage systems will need to be considered as the high precipitation along with the impermeable sandstone the site is made will also be challenging.

PERFORMANCE CRITERIA

Performance Measure: What aspect of the performance of your design is measured? What are the kinds and units of data involved in the measurement?

Performance Measure Source: How and where will you obtain the performance measure?

Performance Analysis: What kind of analysis is done, if any, to generate the performance measure? What tools or instruments will be used (drawings, scale models, computer simulations, etc.)?

Performance Judgement: How will you judge that you have met the performance criterion or criteria? Explain the reasoning behind your judgement.

Space Allocation

Performance Measure:

Separation of spaces between those that are public, private, as well as outdoors should be logical and seamless as the user moves about the spaces, given that a specific user is in the appropriate, allowable spaces.

Performance Measure Source:

Using established and appropriate ratios and percentages between the public and private realms of each typology (counseling center and cultural center) will be the guide and aid for the type of spaces and subsequent areas designed throughout both building types.

Performance Analysis:

Using color-coded "building blocks" representing public and

private realms can be utilized in the early design phase through scaled physical models and computer models. A more thorough Criteria Matrix of specific spaces will also aid the design in terms of allotted area and adjacencies, thus establishing the overall layout and design for the buildings.

Performance Judgement:

Comparing the final space allocation with the guiding ratios and percentages and the specific Criteria Matrix/Matrices will determine if the space allocation is appropriate

Energy Consumption

Performance Measure:

Aspects such as R and U Values of materials, impact on the environment/immediate site, as well as cost of energy will be measured.

Performance Measure Source:

Performance Analysis:

Computer simulation of energy performance as well as energy costs will be analyzed and evaluated through Autodesk Insight.

Performance Judgement:

Using computer simulation throughout the design phase as well as the project completion in comparison to high passive design standards through established codes and criteria will judge the energy consumption.

PERFORMANCE CRITERIA



Environmental Performance

Performance Measure:

As the proposed buildings are aimed for American Indian use, it is appropriate and vital for each building's integrity to be built with passive design strategies. Thermal properties of the materials (via R and U Values) as well as passive lighting and heating/cooling strategies will be measured.

Performance Measure Source:

LEED energy performance measures and codes (and possibly others) will be the sources of energy performance measurement.

Performance Analysis:

Again, Autodesk Insight will be used.

Performance Judgement:

Where the buildings fall according to LEED performance criteria as well as how they perform via computer simulation will judge how well the buildings perform. Judging these buildings on established scales can be the only determinant of how well they would perform theoretically.

PERFORMANCE CRITERIA

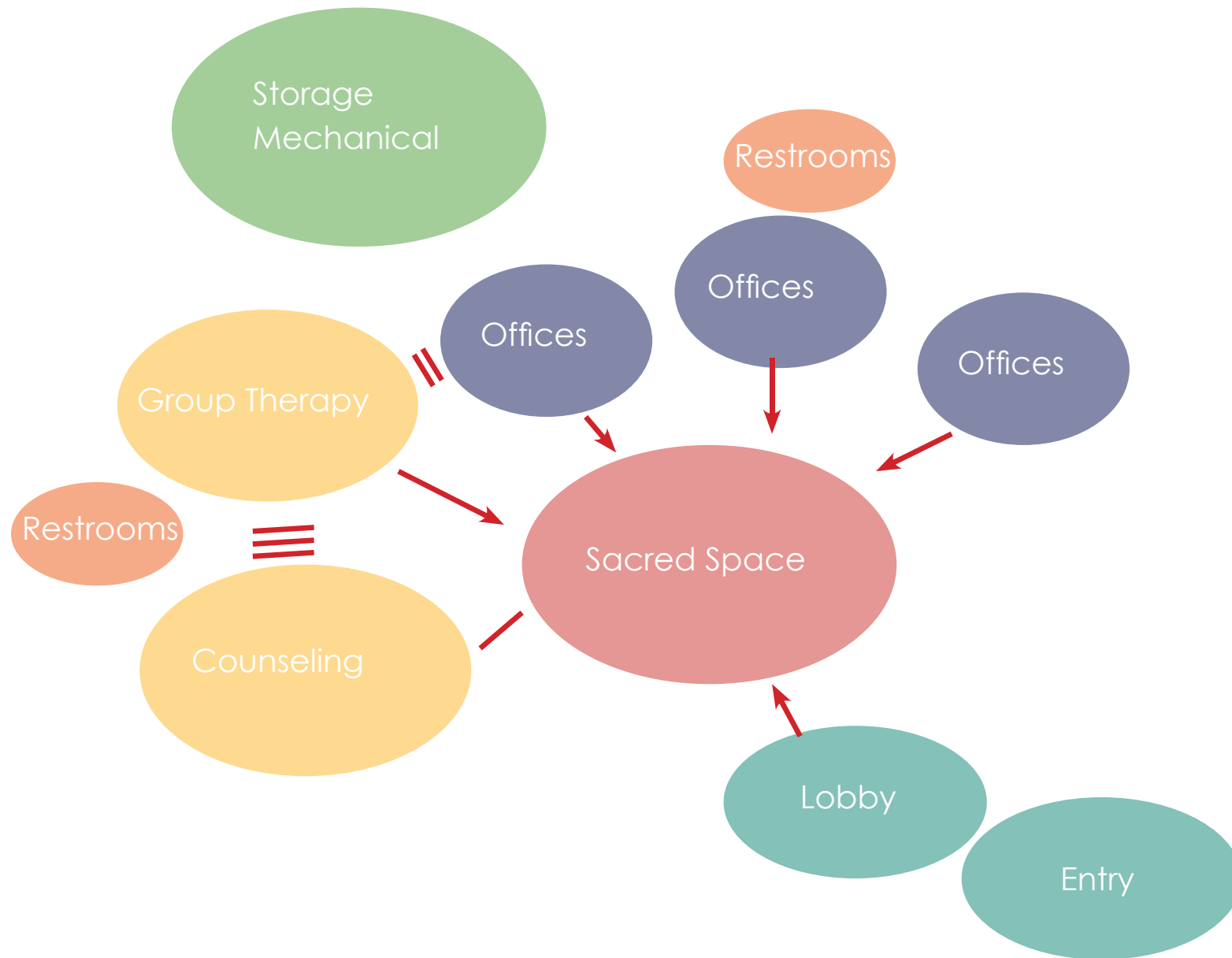
	% Allocation
Counseling Center	
Entry	5%
Lobby	8%
Sacred Space	15%
Restrooms	5%
Counseling Offices	13%
Group Therapy Offices	10%
Program Offices	8%
Admin. Offices	15%
Storage	7%
Mechanical	7%
Electrical	7%
Total	100%

Counseling Center
Entry
Lobby
Sacred Space
Restrooms
Counseling Offices
Group Therapy Offices
Program Offices
Admin. Offices
Storage
Mechanical
Electrical

Adjacent
 Non-Adjacent
 Nearby



PERFORMANCE CRITERIA



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DESIGN PROCESS

SPACIAL ANALYSIS

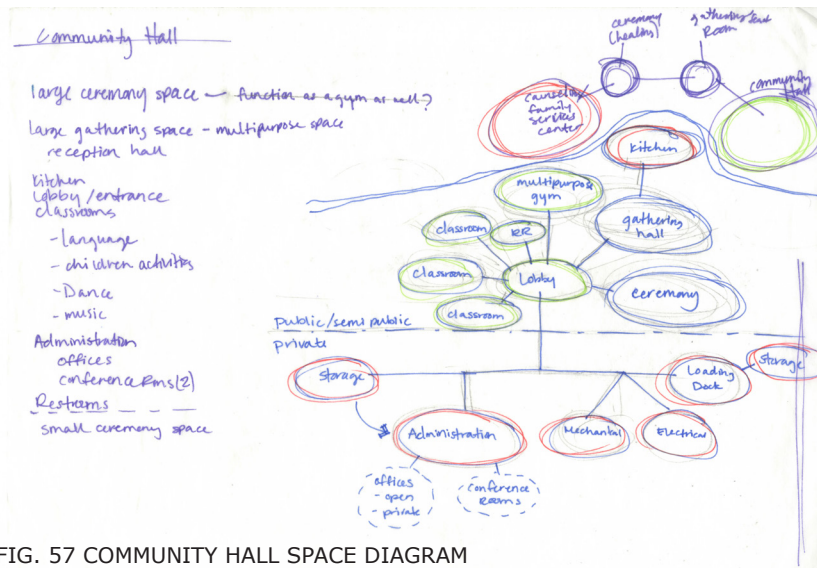


FIG. 57 COMMUNITY HALL SPACE DIAGRAM

Two Typologies

The Community Hall/ Cultural Center includes the main ceremony or large gathering space used for feasts, celebrations, dances, weddings, wakes, and other events for the indigenous community. Classrooms for language, art, dance, and music serve the youth and others who wish to practice their culture.

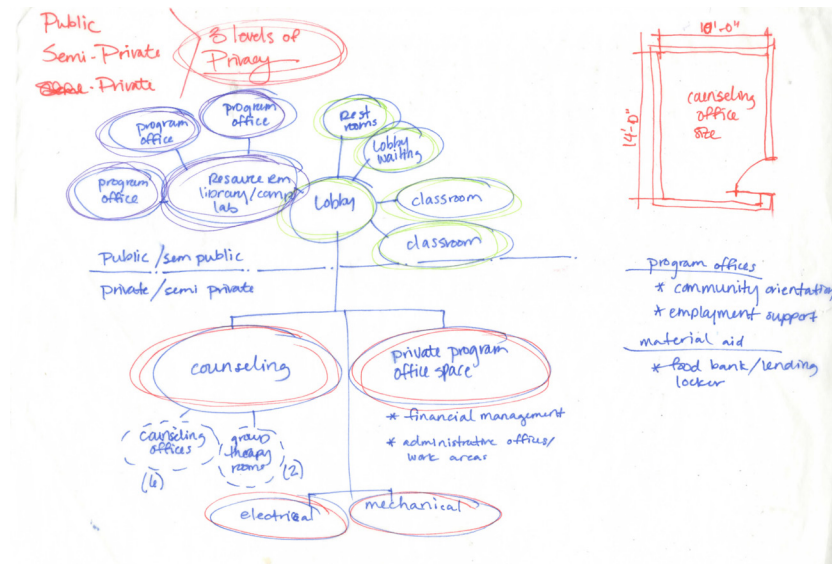


FIG. 58 FAMILY SERVICE CENTER SPACE DIAGRAM

The Family Service Center serves as a place for healing concerning families and individuals for mental health, abuse, and addiction. Spaces include counseling offices, a resource library, classrooms for financial help and literacy, as well as general administration offices.

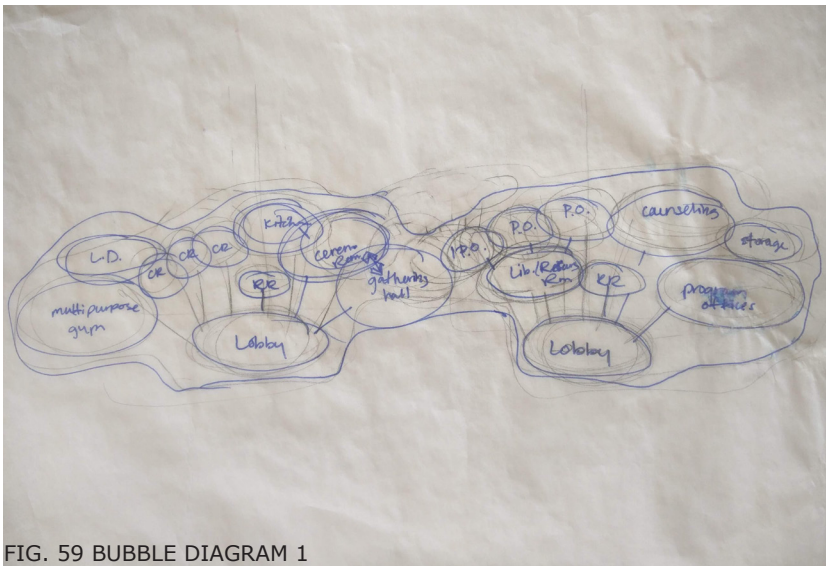


FIG. 59 BUBBLE DIAGRAM 1

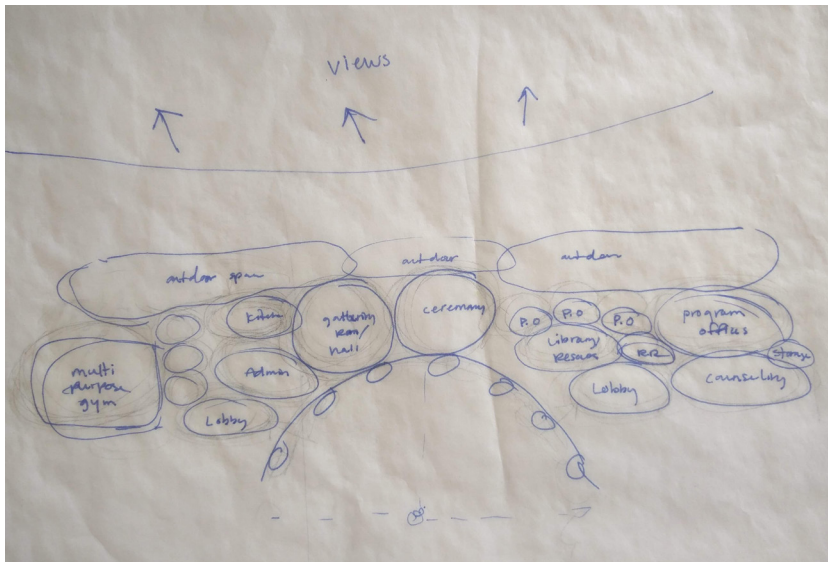


FIG. 60 BUBBLE DIAGRAM 2

Combining Two Typologies

Originally, the two typologies were to be designed apart from one another, but combining the cultural and healing centers are necessary. It is important that users, especially elders, have easy access to both typologies all year round to escape the outdoor elements.

Combining the two typologies is also challenging as there are various levels of privacy and respect. These two solutions solve this by creating a curvilinear path that extend out from the main gathering room.

FORM STUDIES

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jkjkljl

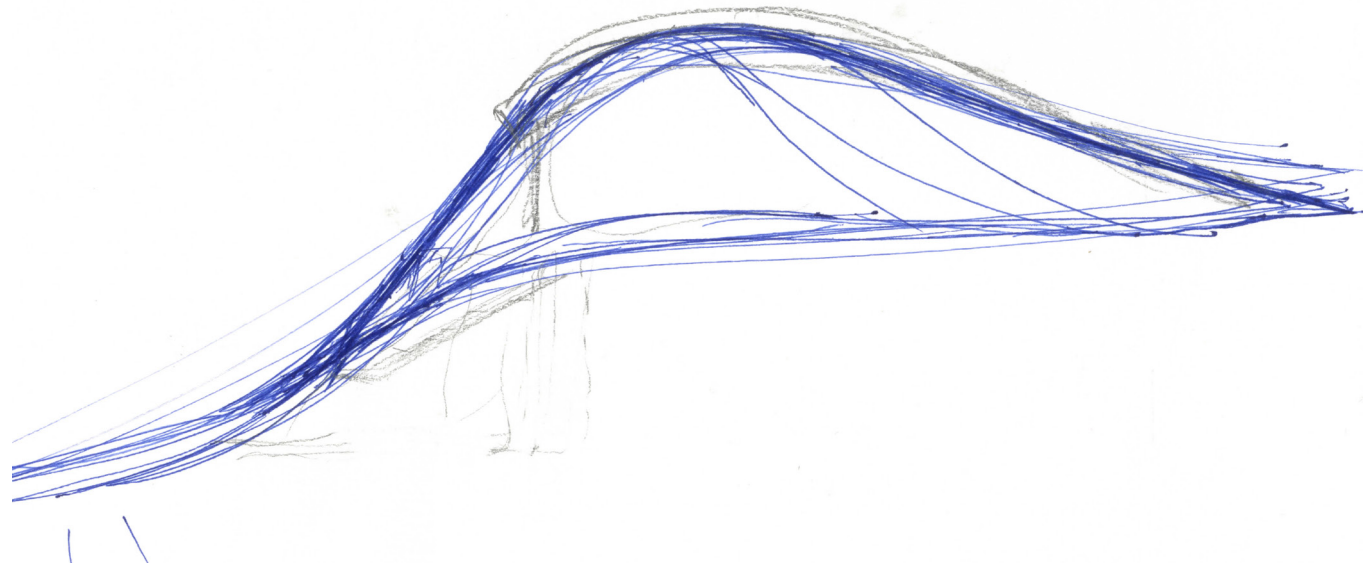


FIG. 61 SKETCH 1

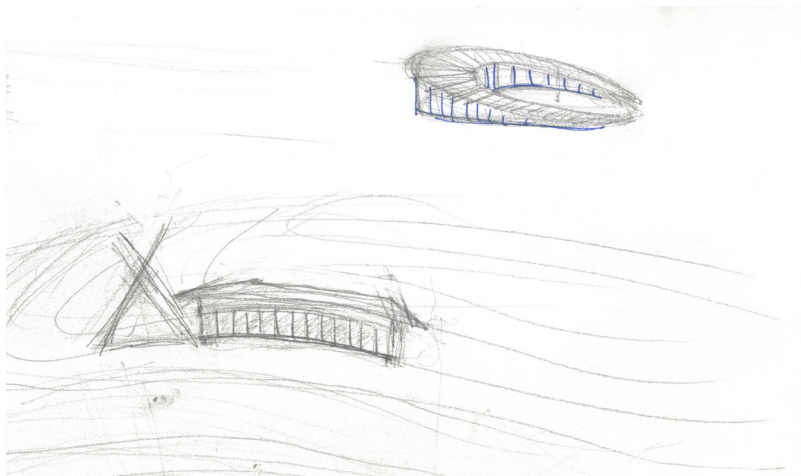


FIG. 62 SKETCH 2

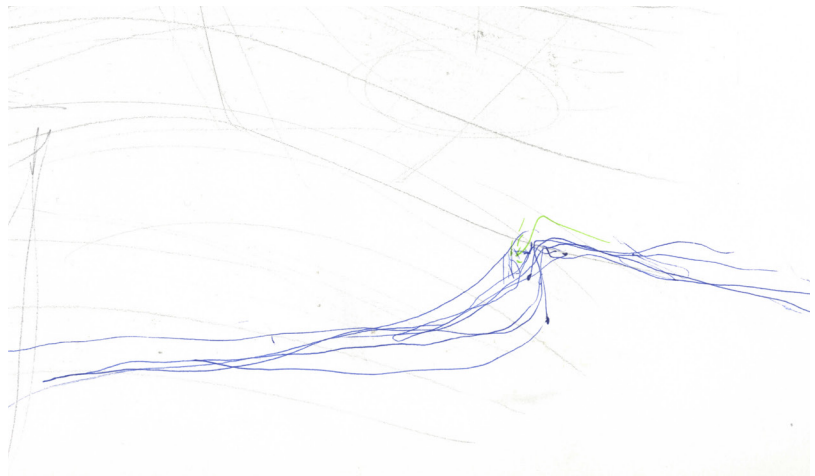


FIG. 63 SKETCH 3

Form Studies

As the proposed buildings are aimed for American Indian use, it is appropriate and vital for each building's integrity to be built with passive design strategies. Thermal properties of the materials (via R and U Values) as well as passive lighting and heating/cooling strategies will be measured.

Performance Measure Source:

LEED energy performance measures and codes (and possibly others) will be the sources of energy performance measurement.

Performance Analysis:

Again, Autodesk Insight will be used.

Performance Judgement:

Where the buildings fall accord-

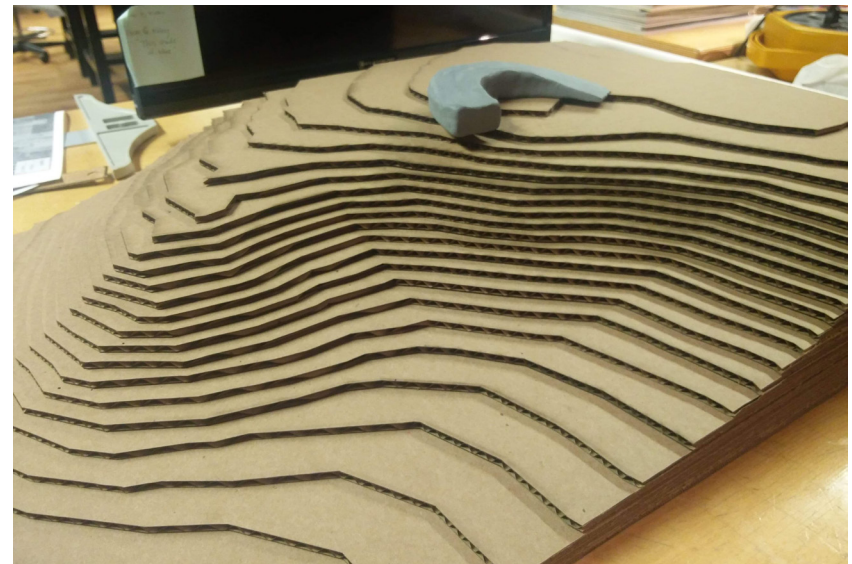
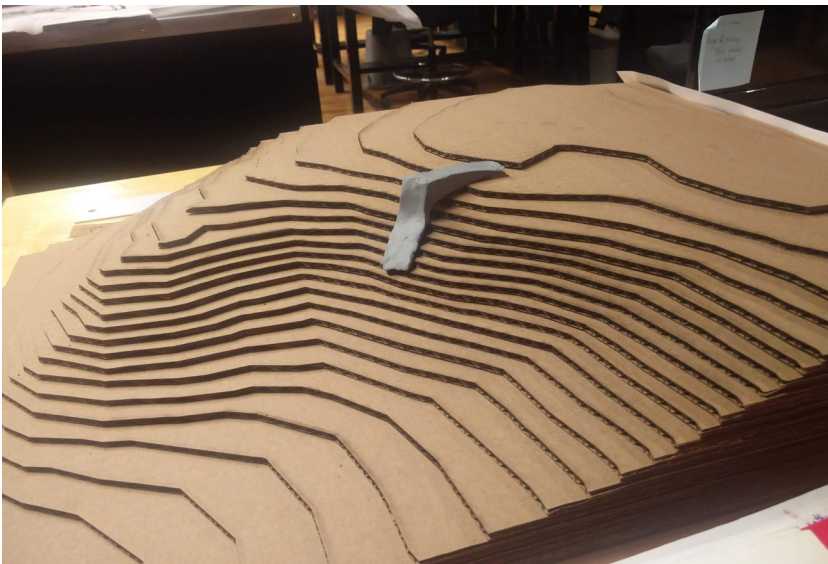
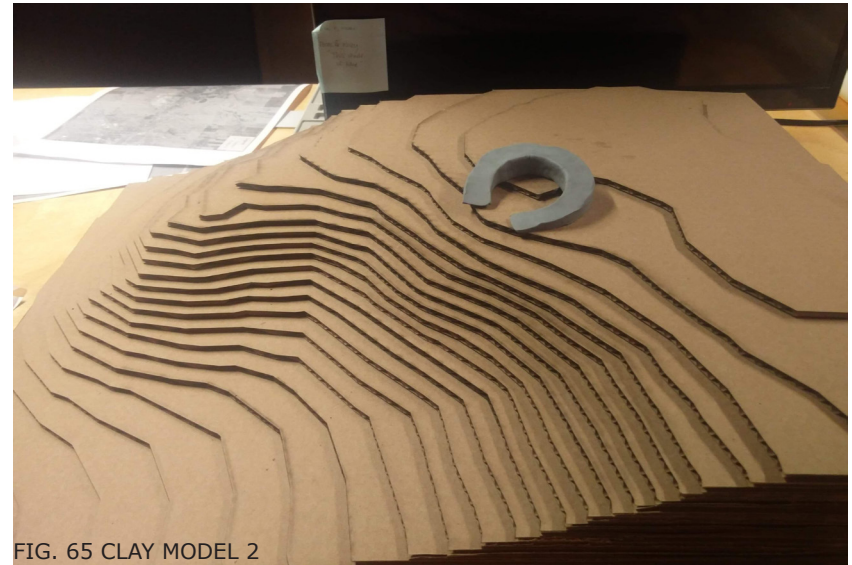
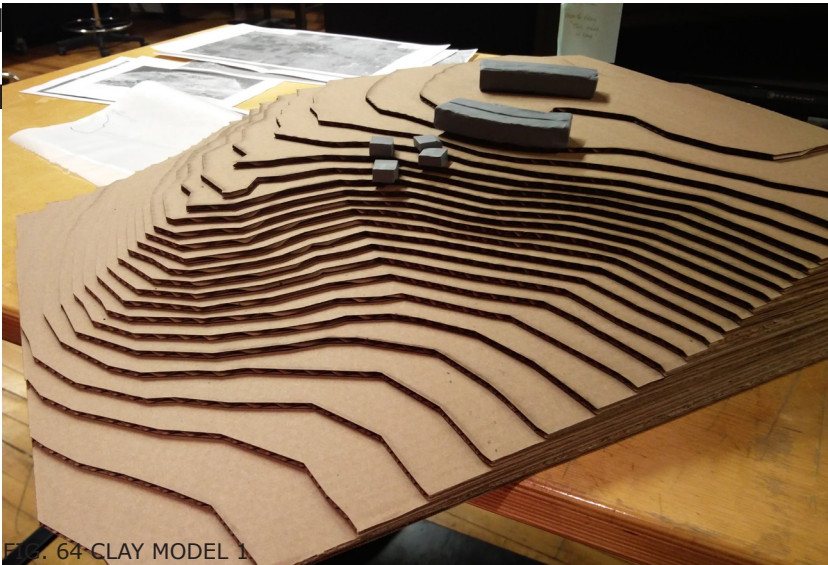
ing to LEED performance criteria as well as how they perform via computer simulation will judge how well the buildings perform. Judging these buildings on established scales can be the only determinant of how well they would perform theoretically.

FORM STUDIES



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FORM STUDIES

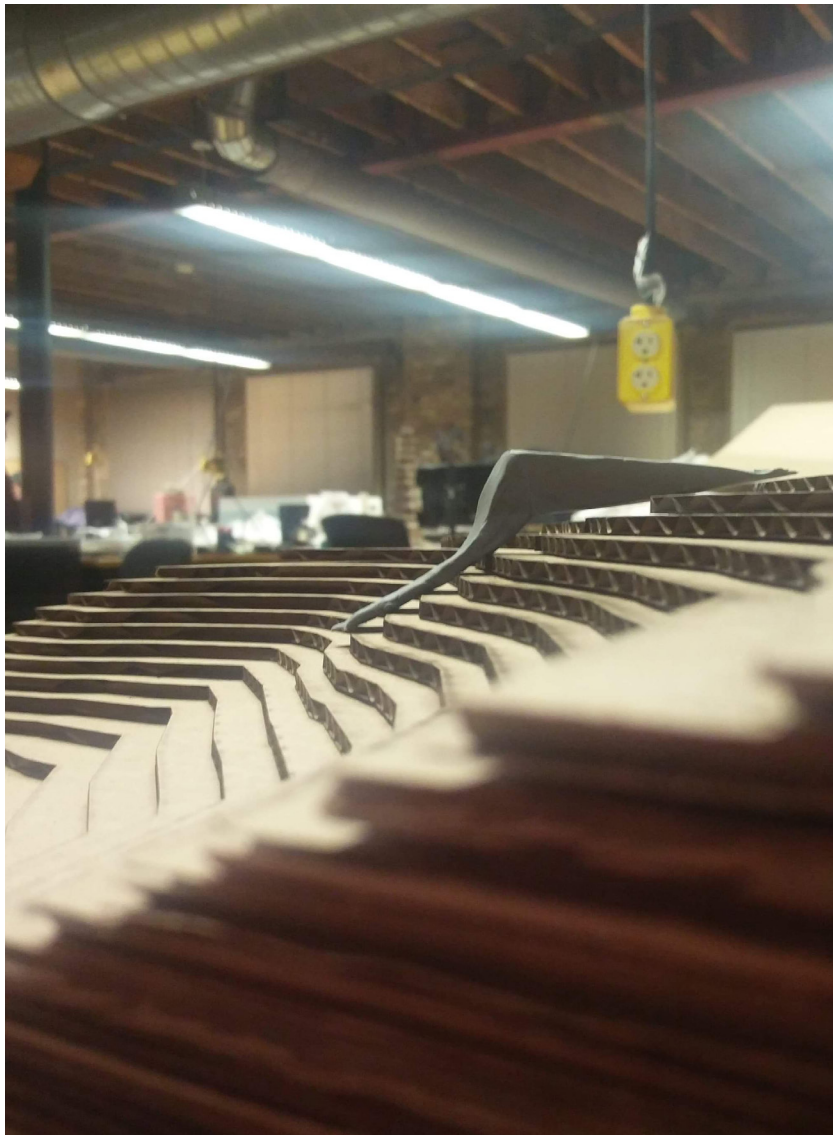


FIG. 68 CLAY MODEL 5

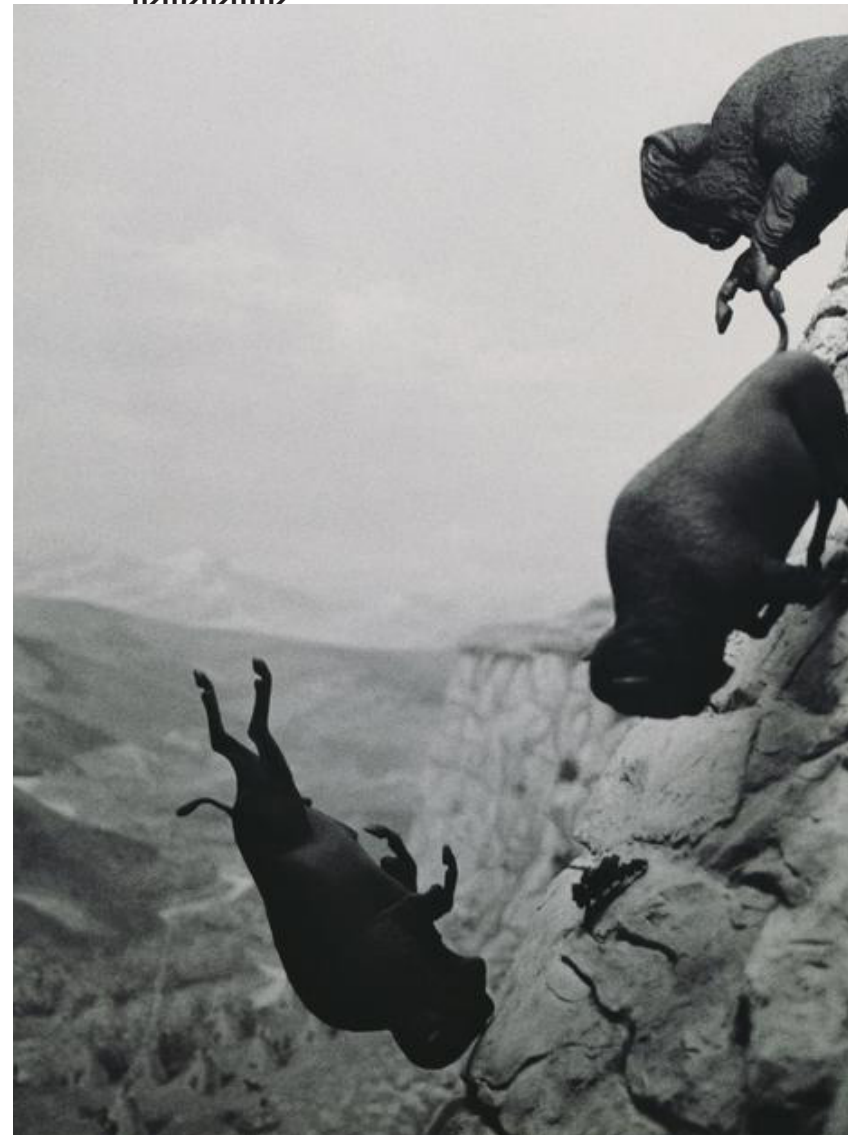


FIG. 69 BUFFALO JUMPING OFF CLIFF

MID CRIT DESIGN

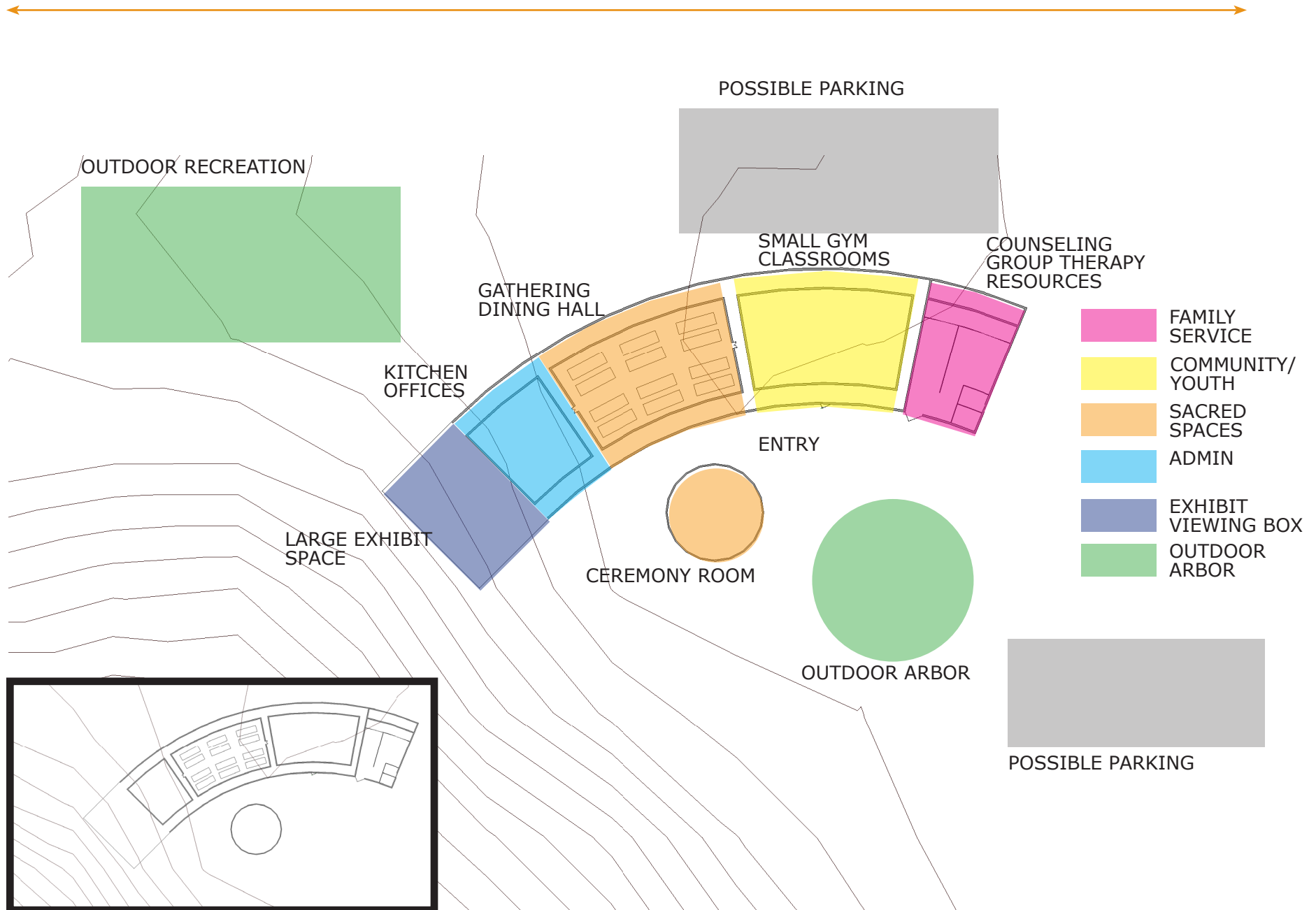


FIG. 70 MID CRIT FIRST FLOOR PLAN



FINAL DESIGN

INTERVIEW WITH FORMER HILL 57 RESIDENT

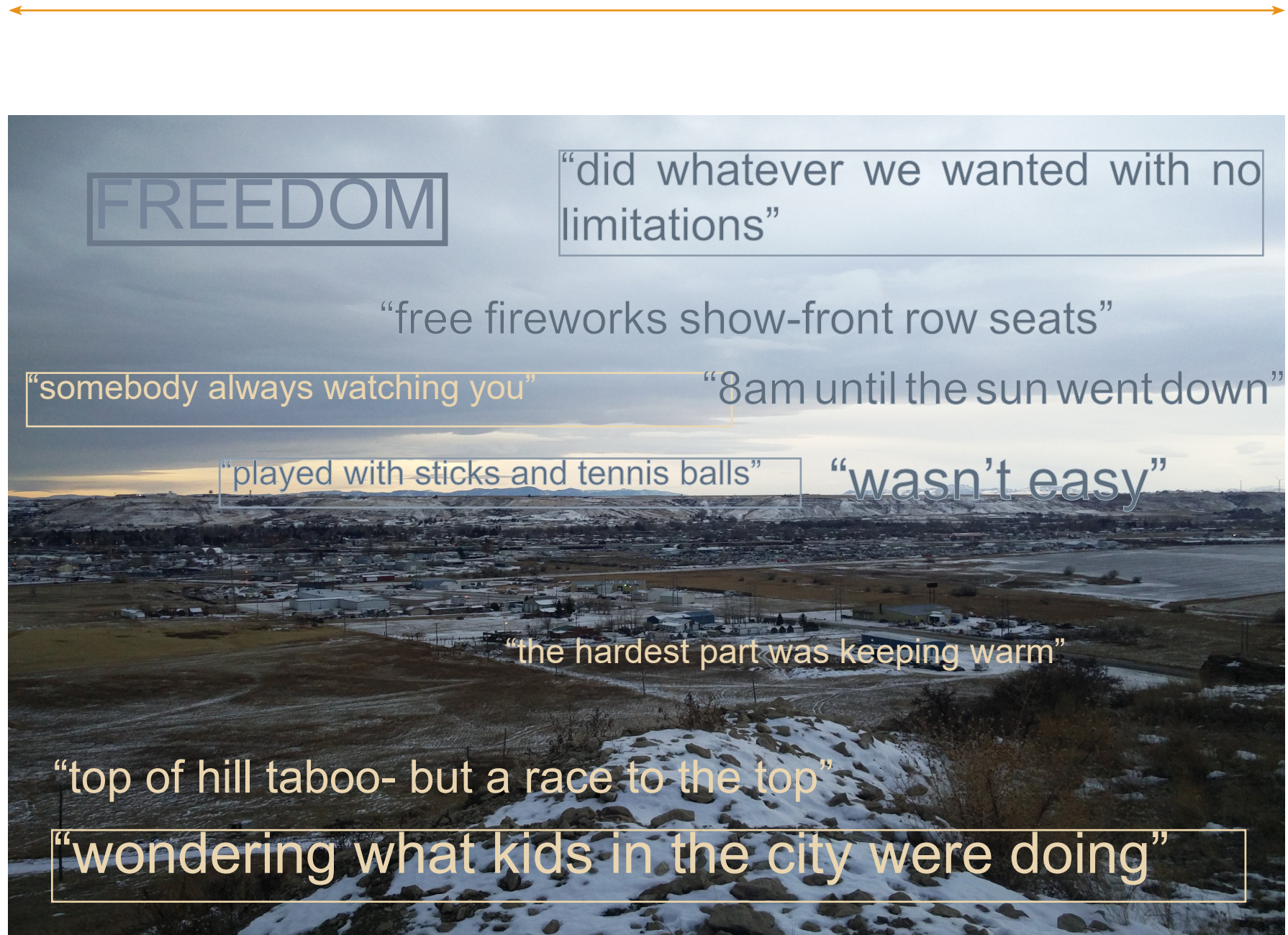


FIG. 71 INTERVIEW WORD COLLAGE

SITE PLAN AND SQUARE BUTTE AXIS

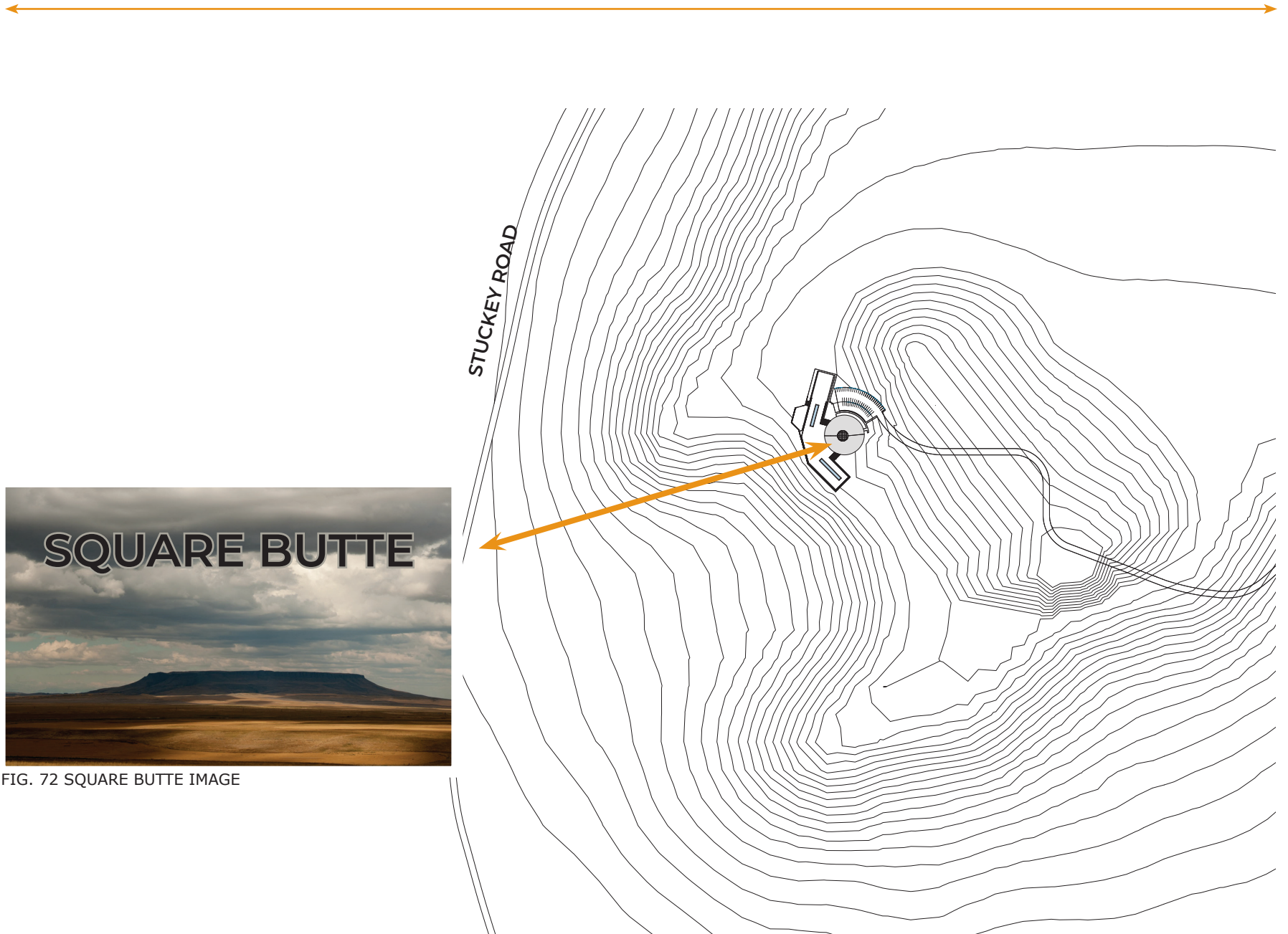


FIG. 72 SQUARE BUTTE IMAGE

FLOOR PLAN : LEVEL ONE

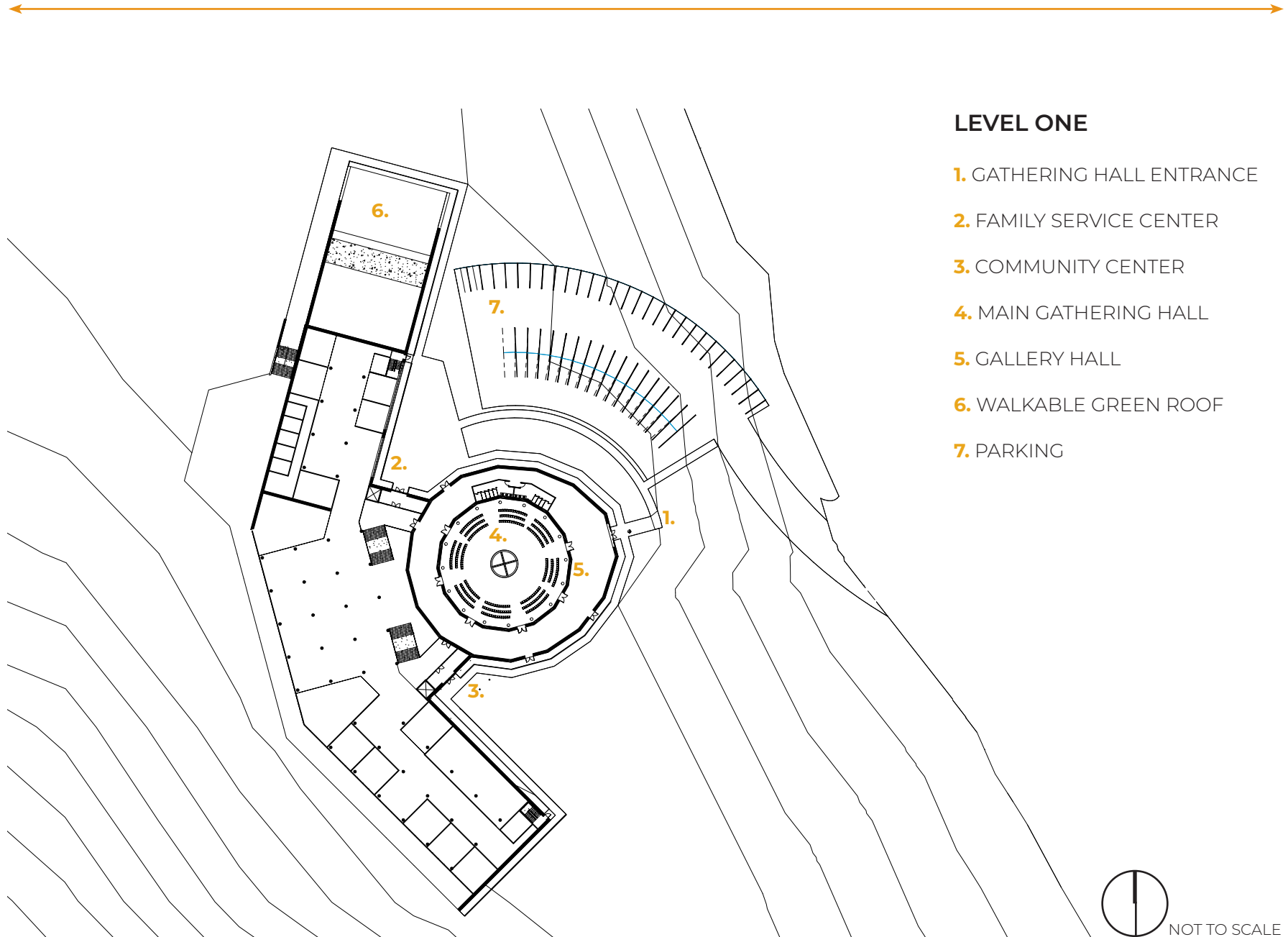
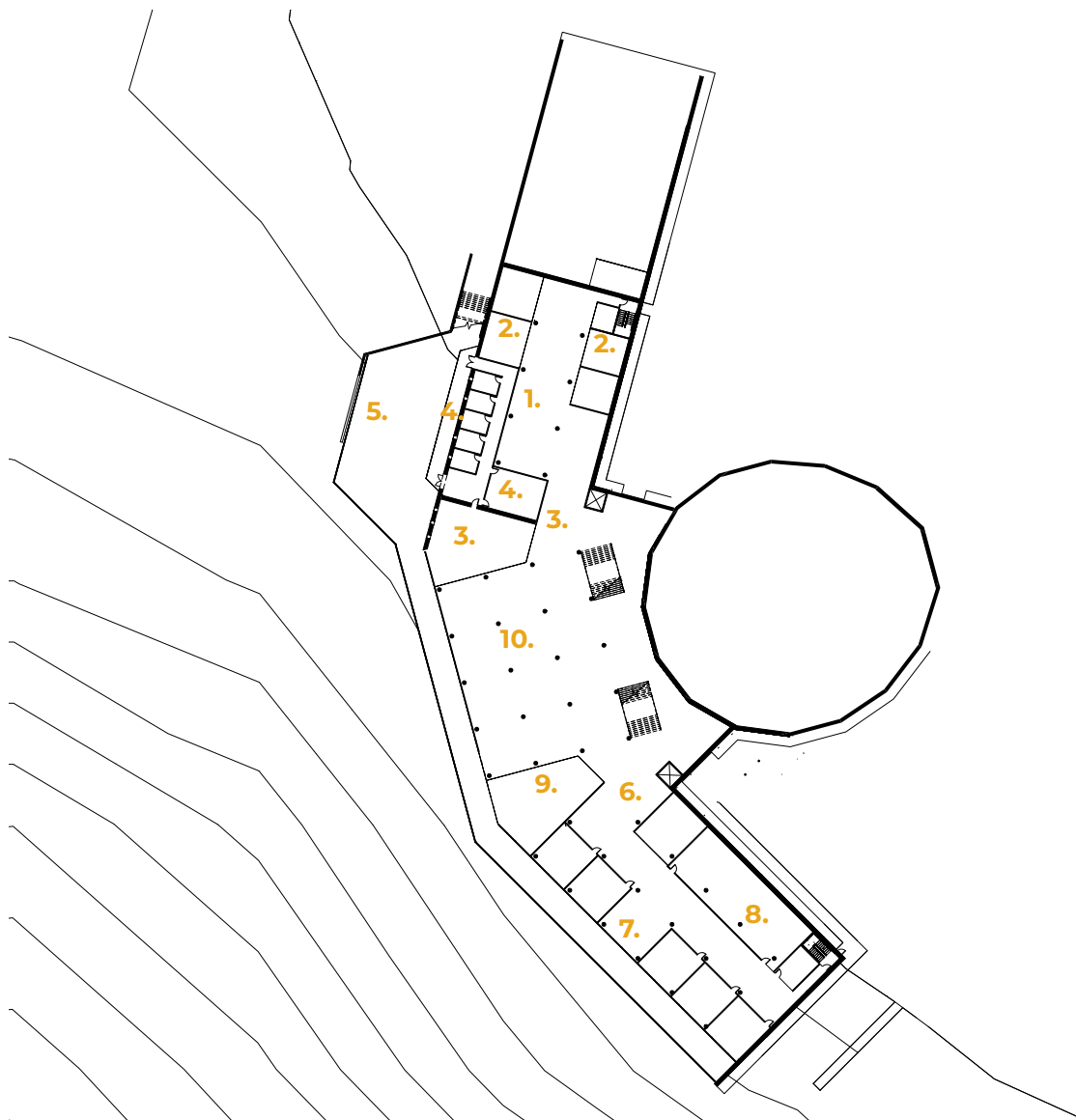


FIG. 73 FIRST FLOOR PLAN

FLOOR PLAN : LOWER LEVEL



LOWER LEVEL: FSC

- 1. LIBRARY
- 2. CLASSROOMS
- 3. ADMINISTRATION/LOBBY
- 4. COUNSELING ROOMS/OFFICES
- 5. OUTDOOR SPACE

LOWER LEVEL: CC

- 6. LOBBY
- 7. CLASSROOMS
- 8. DANCE STUDIO
- 9. ADMINISTRATION
- 10. OPEN SPACE/GALLERY

FIG. 74 LOWER LEVEL FLOOR PLAN



SECTION CUT

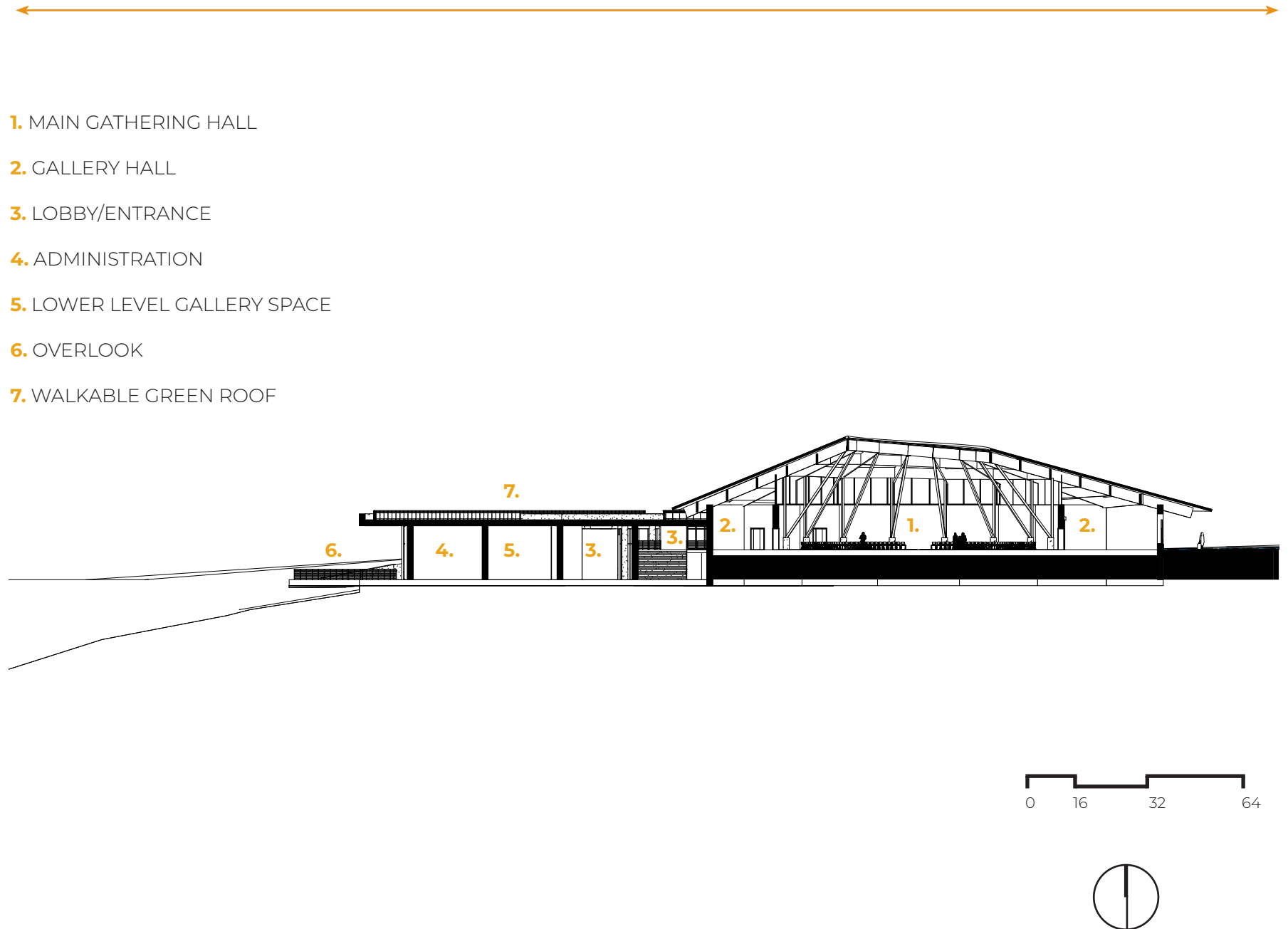


FIG. 75 SECTION CUT

VIEW FROM NORTHERN PEAK

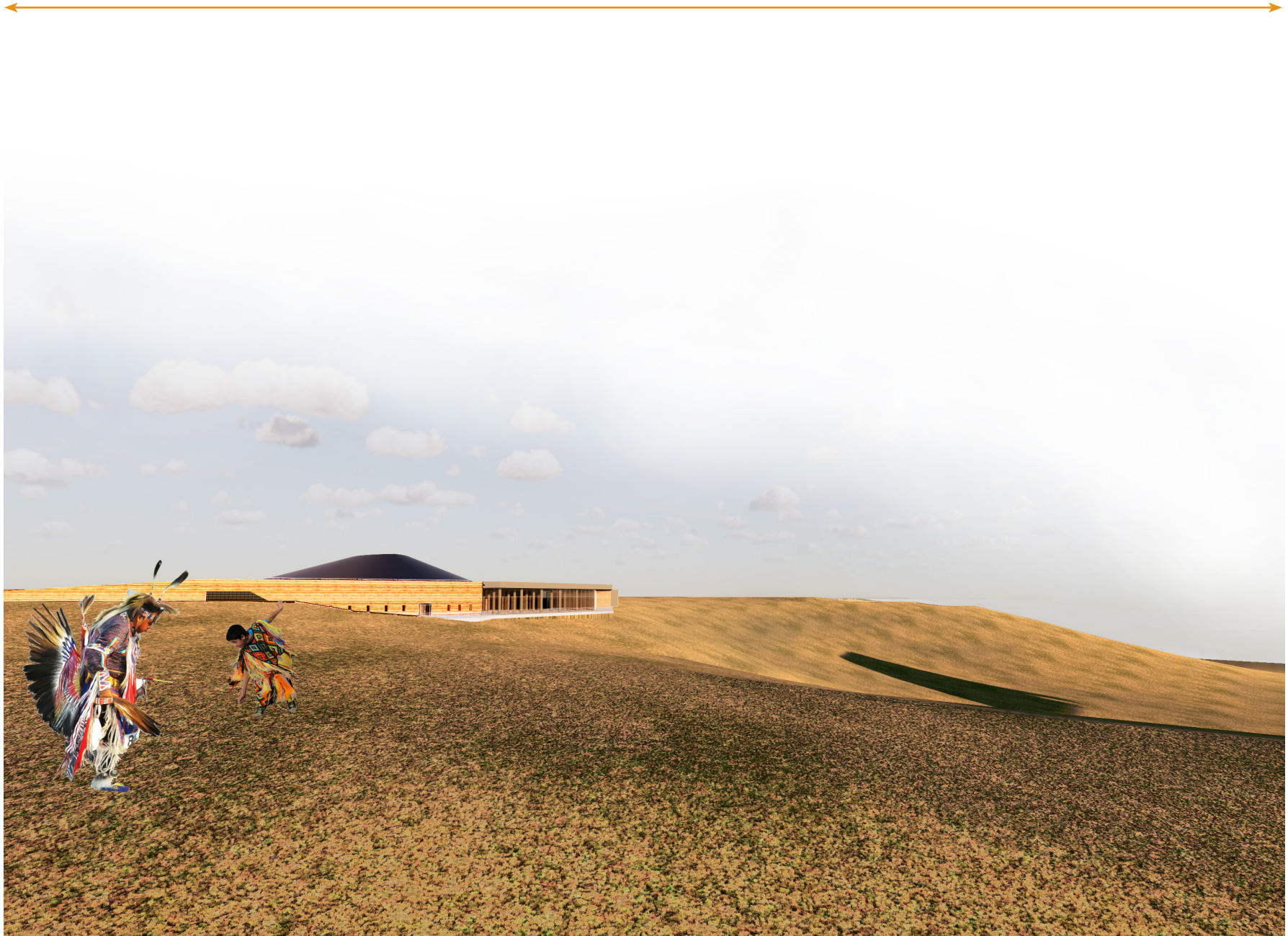


FIG. 76 PERSPECTIVE FROM NORTHERN PEAK

APPROACH

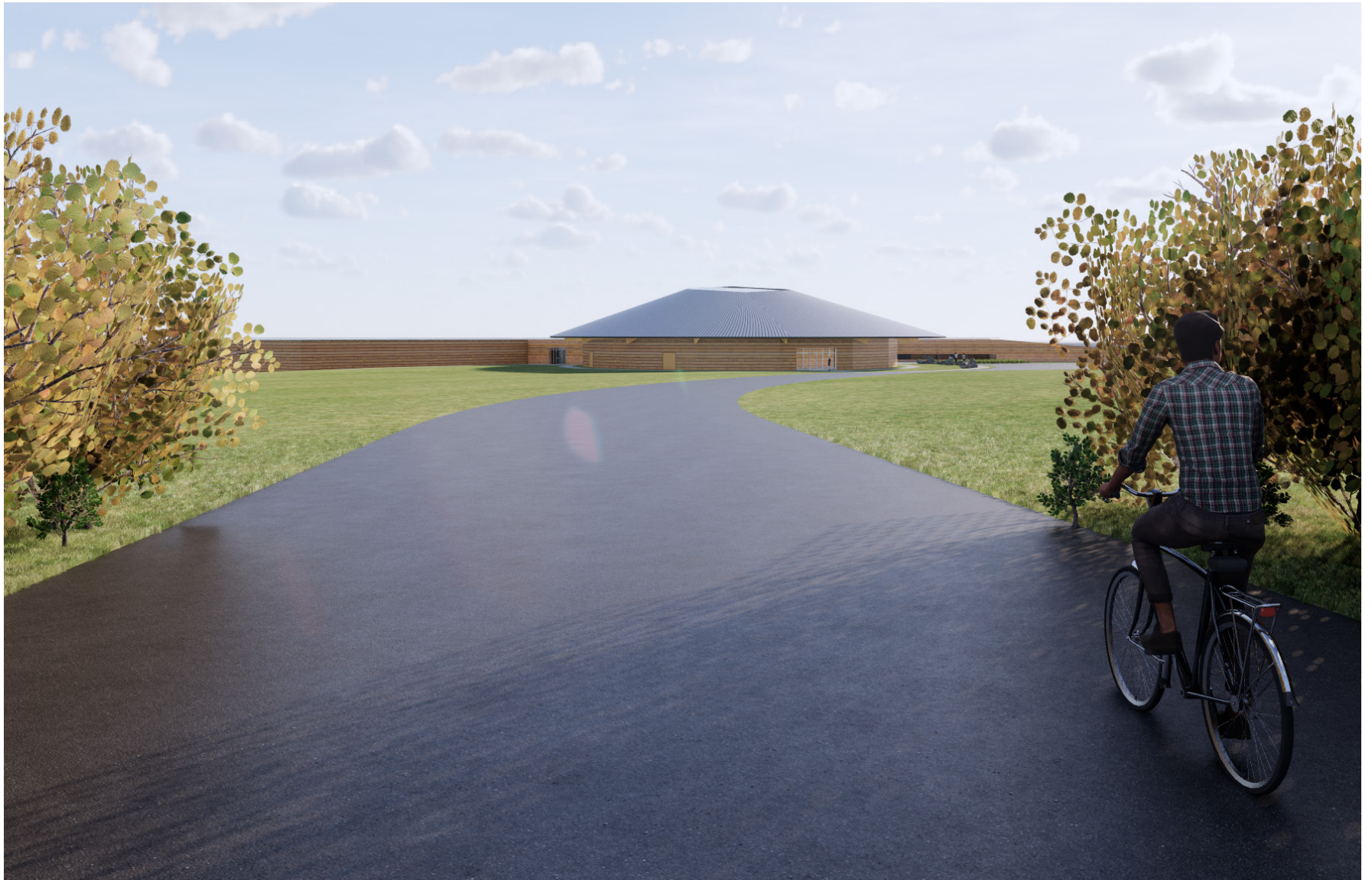


FIG. 77 APPROACH

NORTHERN VIEW OF GREEN ROOF



FIG. 78 NORTHERN VIEW OF GREEN ROOF

FAMILY SERVICE CENTER ENTRANCE



FIG. 79 FAMILY SERVICE CENTER ENTRANCE

GATHERING ROOM 1



FIG. 80 GATHERING ROOM VIEW WITH SEATING

GATHERING ROOM 2



FIG. 81 GATHERING ROOM VIEW WITHOUT SEATING

GATHERING ROOM HALLWAY



FIG. 82 GATHERING ROOM HALLWAY

FAMILY SERVICE CENTER OPEN SPACE

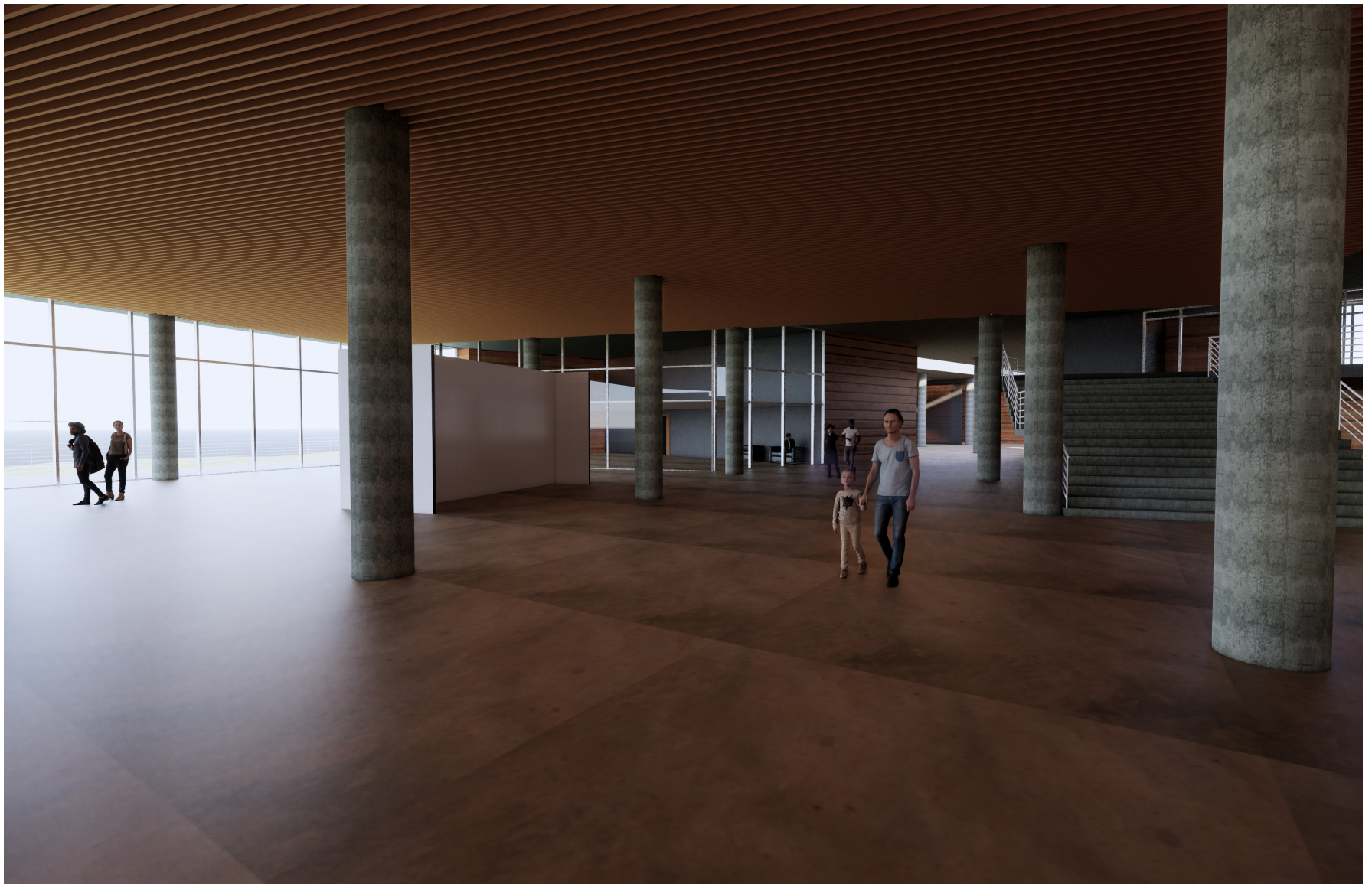


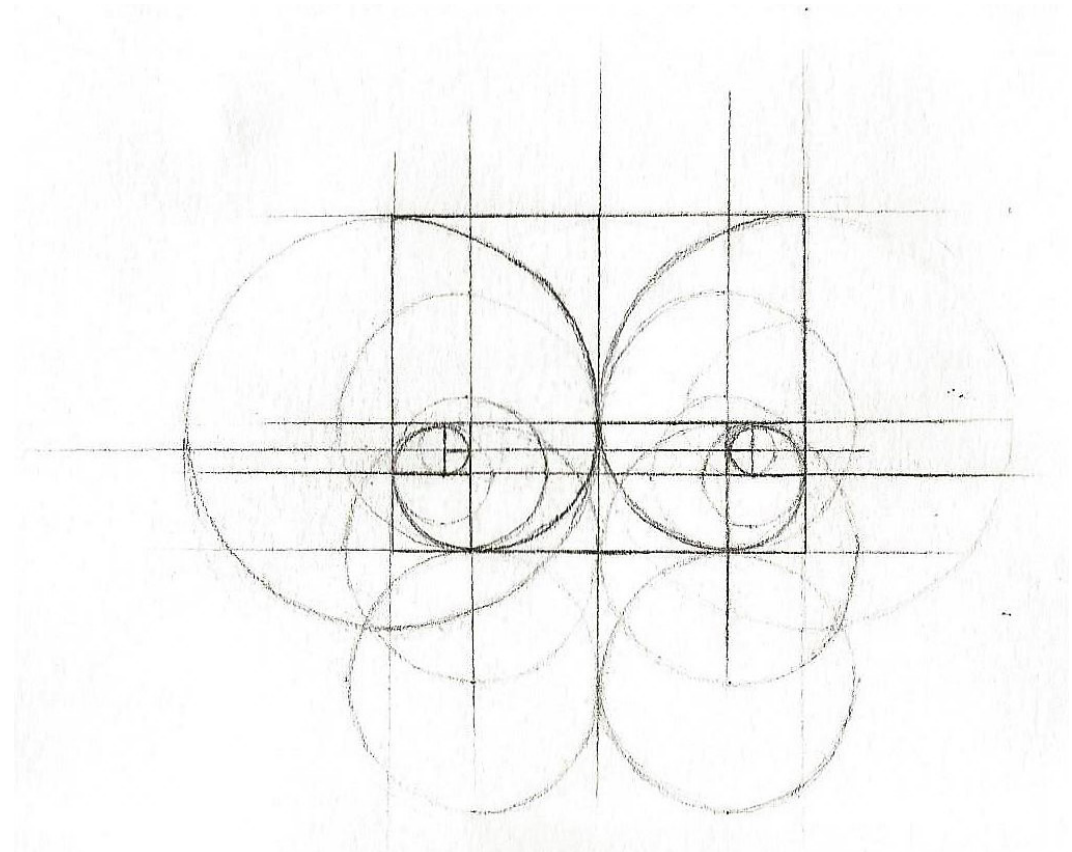
FIG. 83 FAMILY SERVICE CENTER OPEN SPACE

IDENTIFICATION



Meaghan Lee Hawley

I am a student of life that is ever learning and ever curious. I have been a lover of art since I was a young girl and knew that I wanted to pursue a life full of beauty and creativity. I aspire to use my talents and imagination to help build beautiful and better spaces, places, products, & communities. My desire is to inspire & to be inspired.



APPENDIX



FALL 2015

Professor Cindy Urness

Tea House

SPRING 2016

Professor Darryl Booker

*Montessori School
Colorado Dwelling
Bird House*

FALL 2016

Professor Paul Gleye

*Wellness Center
Culinary School*

SPRING 2017

Professor Mark Barnhouse

*Sanford Ambulatory
Hospital
Appareo Manufacturing
Facility*

FALL 2017

Professor Don Faulkner

*Mixed Use High Rise
Ephemeral to Solid
Competition*

SPRING 2018

Professor David Crutchfield

*Urban Design FarGO 2030
Marvin Windows Competi-
tion*

FALL 2018


Adjunct Professor Doug
Hanson

*Guggenheim Bilbao Ex-
pansion*

SPRING 2019

Professor Cindy Urness

Thesis



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